DISCLAIMER NOTICE

THIS DOCUMENT IS BEST QUALITY PRACTICABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

DOT/FAA/DS-89/05

Advanced System Design Service
Washington, D.C. 20591

National Airspace System Notice to Airmen (NOTAM) System Operational Concept (NAS-SR-NOTAM)

Advanced System Design Service
Federal Aviation Administration
Washington, D.C. 20591

December 1988

Final Report

US Department of Transportation
Federal Aviation Administration

NOTICE

This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for the contents or use thereof.

The United States Government does not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the objective of this report.

DISTRIBUTION: A-W(VS/RP/ND/DI/AF/AT/OP)-2; A-W(AP/NS/SE/DS/MC/OR PS/GM/TO/TR)-3; ACN-14C(8 cys); ACM-413(25 cys); TSC-DTS-51(7 cys); TSC-DTS-930(Library)(4)

Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
DOT/FAA/DS-89/05		

4. Title and Subtitle	5. Report Date
NOTICE TO AIRMEN (NOTAM) SYSTEM OPERATIONAL CONCEPT	December 1988
	6. Performing Organization Code
7. Author(s)	8. Performing Organization Report No.
Betty K. Falato	DOT/FAA/CT-TN89/10
9. Performing Organization Name and Address	10. Work Unit No. (TRAIS)
Federal Aviation Administration Technical Center Atlantic City International Airport, New Jersey 08405	11. Contract or Grant No.
	13. Type of Report and Period Covered
12. Sponsoring Agency Name and Address	Technical Note
U.S. Department of Transportation Federal Aviation Administration Advanced System Design Service Washington, DC 20590	14. Sponsoring Agency Code

15. Supplementary Notes

16. Abstract

A requirement for the National Airspace System (NAS) to provide timely knowledge to users of information which is essential to safety of flight is identified in the NAS System Requirement Specification, NAS-SR-1000. The primary method of providing timely aeronautical information is via the Notice to Airmen (NOTAM) system. This document presents a concept of operations for the NOTAM system. It describes NOTAM system capabilities and shows the relationships between subsystems, facilities, information, and operators/users. It is intended to provide a common perspective for personnel involved in NOTAM-related activities, assist in determining whether the NOTAM system meets formal requirements, and support coordination among the organizations involved with the NOTAM system. Aviation safety.

17. Key Words	18. Distribution Statement
NOTAM System Aeronautical Information transfer (edc)	Document is on file at the Technical Center Library, Atlantic City International Airport, New Jersey 08405

19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	51	

Form DOT F-1700.7 (8-72) Reproduction of completed page authorized

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

1.1 Background

For safety, pilots require up-to-date aeronautical information in all phases of flight. The primary source of timely aeronautical information is the Notice to Airmen (NOTAM) system, which is maintained and operated by the Federal Aviation Administration (FAA). The goal of the NOTAM system is to provide accurate and timely NOTAMs (i.e., messages) for all National Airspace System (NAS) users and specialists. The NOTAM system, in this context, includes all NAS subsystems involved in performing NOTAM-related functions. For example, it includes the Consolidated NOTAM System (CNS), the Flight Service Automation System (FSAS), the Traffic Management System (TMS), etc. The system provides coverage on all NAS facilities, United States military facilities, and selected foreign (civil and military) facilities.

Data used to formulate NOTAM messages are referred to in this context as system status data, hazardous conditions, or Flight Data Center (FDC) data or, collectively, as system conditions. NOTAM information can be either temporary in nature or permanent information that is not known in time to publish in appropriate aeronautical charts or publications. NOTAMs are collected from various domestic, military, and international sources; processed; and distributed by the NOTAM system. They are maintained at the various air traffic facilities until the conditions requiring the NOTAMs no longer exist or until the appropriate aeronautical charts and publications are updated.

1.2 Objectives

The objective of this concept of operations is to describe how NOTAM information is acquired and disseminated to pilots and other flight operations personnel. The document is intended as a tool for system designers, analysts, and operational test planners in determining if and how well the NAS design and its implementation meet the NAS requirements for NOTAM origination, processing, maintenance, and distribution. In addition, it provides to management and technical personnel of the FAA and other involved organizations a general description of how the NOTAM system operates.

1.3 Scope

This document covers the aeronautical information requirements as delineated in Section 3.1.2 of the NAS System Requirements Specification (NASSRS) that pertains to changes in NAS components; i.e., aeronautical information that meets NOTAM criteria and is distributed throughout the NAS and to external subscribers and users via the NOTAM system. Aeronautical information that does not meet NOTAM criteria or that is distributed via other means is not covered. Specific NASSRS paragraphs relating to NOTAM system requirements are as follows:

3.1.2	Aeronautical information requirements.
3.1.2.A	Acquiring and maintaining aeronautical information.
3.1.2.A.1	Acquire and maintain information for entire geographic area of NAS responsibililty.

3.1.2.A.1.a Information concerning the establishment, condition, or change in any appropriate component of the NAS.

3.1.2.A.2 Accept and verify information from any source.

3.1.2.A.3 Information available within 1 minute after entry into any data base.

3.1.2.A.4 Information removed from the data base within 1 hour after it is no longer relevant or valid.

3.1.2.B Information continuously available to specialists.

3.1.2.C Information continuously available to user.

3.1.2.D Information obtainable by a specified route, or by specified locations or areas.

3.1.2.E Voice/data communications in accessing or disseminating information.

3.1.2.E.1 User access to information over common carrier telecommunications lines or via air-ground data communications.

3.1.2.E.2 Autoanswer capabilities for dial-up data communications by users.

3.1.2.F Aeronautical information service in peak demand.

3.1.2.F.1 Respond to specialists request for information within 10 seconds.

3.1.2.F.2 Respond to user request for information within 10 seconds.

Specific NAS Plan (NAS Plan: Facilities, Equipment and Associated Development) projects also state or imply requirements pertinent to NOTAM system operations. These include the FSAS, the CNS, and the Weather Message Switching Center Replacement (WMSCR). Pertinent NAS Plan statements are summarized below, by project:

FSAS Improves user access to NOTAMs.

CNS Receives NOTAM data from military, FAA, and International Civil Aviation Organization (ICAO) facilities; provides request and reply service to subscriber stations; corrects, reformats, and validates NOTAMs as necessary; automates NOTAM editing; monitors and deletes NOTAMs automatically; and increases the NOTAM statistic reporting capability.

WMSCR Stores and distributes NOTAMs from the consolidated NOTAM system processor (CNSP).

1.4 Methodology

The methodology utilized in providing perspective and insight into the operational concepts provides information in a number of different ways. The focus of the material is built around four different kinds of diagrams and/or descriptive information. These are described below:

1. OPERATIONAL BLOCK DIAGRAM/DESCRIPTION. The Operational Block Diagram/Description illustrates the connectivity between the elements of the NAS; i.e., facilities, specialists, and controllers; and with the user for those NAS elements used to support the subject function. It is derived from the design and/or program documents.

2. OPERATIONAL FLOW DIAGRAM/DESCRIPTION. The Operational Flow Diagram/Description is an expansion of each of the elements of the NAS shown in the Operational Block Diagram. It provides more detail about inputs, processes, outputs, and interfaces for each element.

3. OPERATIONAL SEQUENCE DIAGRAM/DESCRIPTION. The Operational Sequence Diagram/Description shows a typical sequence of steps necessary to provide the subject function; e.g., NOTAM origination.

4. OPERATIONAL SCENARIO/DESCRIPTION. The Operational Scenario/Description depicts the required support to a specific predefined situation; e.g., a preflight briefing for an Instrument Flight Rule (IFR) flight, or an inflight briefing to an IFR aircraft with specific equipment. It is derived from the requirement of a user in a specific situation.

The first two of these, the Operational Block Diagram/Description and the Operational Flow Diagram/Description are derived from the design and program documentation. The second two, the Operational Sequence and the Operational Scenario are derived from the requirements of the users. Presenting the operation from these different perspectives allows a comprehensive understanding of the function and provides assurance that the design provides the capabilities required to support the requirements of the particular function.

1.5 Document Organization

The remainder of this document is organized as follows. Chapter 2 is the main body of the document and is divided into six subsections. Section 2.1 describes the facilities, systems, and specialists' positions that are involved in performing NOTAM system functions. It includes an Operational Block Diagram depicting the various NAS elements and the users. Descriptions of each of the supporting functional elements include appropriate references. Section 2.2 describes the types of information promulgated by NOTAM. Section 2.3 expands the NAS elements identified in Section 2.1 in Operational Flow Diagrams. It provides information inputs, processes, and outputs for each of the elements and identifies the interfaces to other NAS elements and to the user. Section 2.4 provides a table summarizing the correlation between the NOTAM system operational requirements set forth in the NASSRS and the specialist/controller functions described in Section 2.3. Section 2.5 presents typical Operational Sequences used in providing NOTAM system services and shows the sequential interaction between users, specialists, NAS elements, and others. In Section 2.6, Operational Scenarios describe hypothetical situations involving the use of the NOTAM system.

2.0 NOTAM SYSTEM OPERATIONS

2.1 Support

Figure 2-1 illustrates the NAS facilities, systems, external organizations, and user systems that might be involved in NOTAM system operations. The National NOTAM System Components shown on the diagram depict NAS elements that get involved in NOTAM system operations on a national scale; whereas, the Area NOTAM System Components depict NAS elements that get involved in NOTAM system operations concerning their own area of responsibility. The National Flight Data Center (NFDC) operates and monitors the NOTAM system, originates FDC and other types of domestic NOTAMs, and serves as a liaison for the receipt and distribution of military and international NOTAMs. The National Aviation Weather Processing Facility (NAWPF) collects and processes domestic, military, and international NOTAMs; distributes them to NAS and user subsystems; and maintains national NOTAM data bases. The Air Traffic Control Command Center (ATCCC) originates all Central Altitude Reservation Function (CARF) and Traffic Management (TM) NOTAMs. Each Automated Flight Service Station (AFSS) originates and distributes NOTAMs within its own flight plan area. An Area Control Facility (ACF) or an Air Traffic Control Tower (ATCT) receives or generates data that meet NOTAM criteria and forwards them to an AFSS, the NFDC, or the ATCCC for NOTAM generation, as appropriate. Occasionally they provide NOTAM information to pilots.

2.1.1 NAS facilities/systems

The NAS facilities, systems, major information paths, and specialists' positions that may become involved in NOTAM system operations are shown in figure 2-2. Information meeting NOTAM criteria may be acquired from internal and external sources by any of the NAS facilities (ATCTs, ACFs, AFSSs, ATCCC, NFDC, etc.) via voice or data communications. These data are forwarded to the NFDC, AFSSs or the ATCCC for NOTAM origination, as appropriate. NAS specialists enter NOTAM messages into the NOTAM system via their respective work stations using a standard domestic NOTAM message format. NOTAMs may also enter the NOTAM system from the military NOTAM system via the Automated Weather Network (AWN) and from the international NOTAM system via the Aeronautical Fixed Telecommunications Network (AFTN)/National Airspace Data Interchange Network (NADIN) interface. NOTAM comeback copies are forwarded to the specialists entering the NOTAMs.

All NOTAMs are ultimately forwarded to and processed by the CNSPs at the NAWPFs, after which they are forwarded to the traffic management processor (TMP) for use by specialists at the ATCCC, to the Area Control Computer Complex (ACCC) for use by specialists at the ACFs and ATCTs, to the Weather Communications Processor (WCP) for access by pilots via data link, to the WMSCR for distribution to other NAS specialists and domestic subscribers, to the AWN for distribution to military specialists, and to the AFTN/NADIN for distribution to foreign countries. The WMSCR distributes NOTAMs to the flight service data processing system (FSDPS) via the aviation weather processor (AWP) for use by flight service specialists and the voice response system (VRS) service, to the Direct User Access Terminal (DUAT) Processor for users of the DUAT service, and to external subscribers in accordance with predetermined agreements.

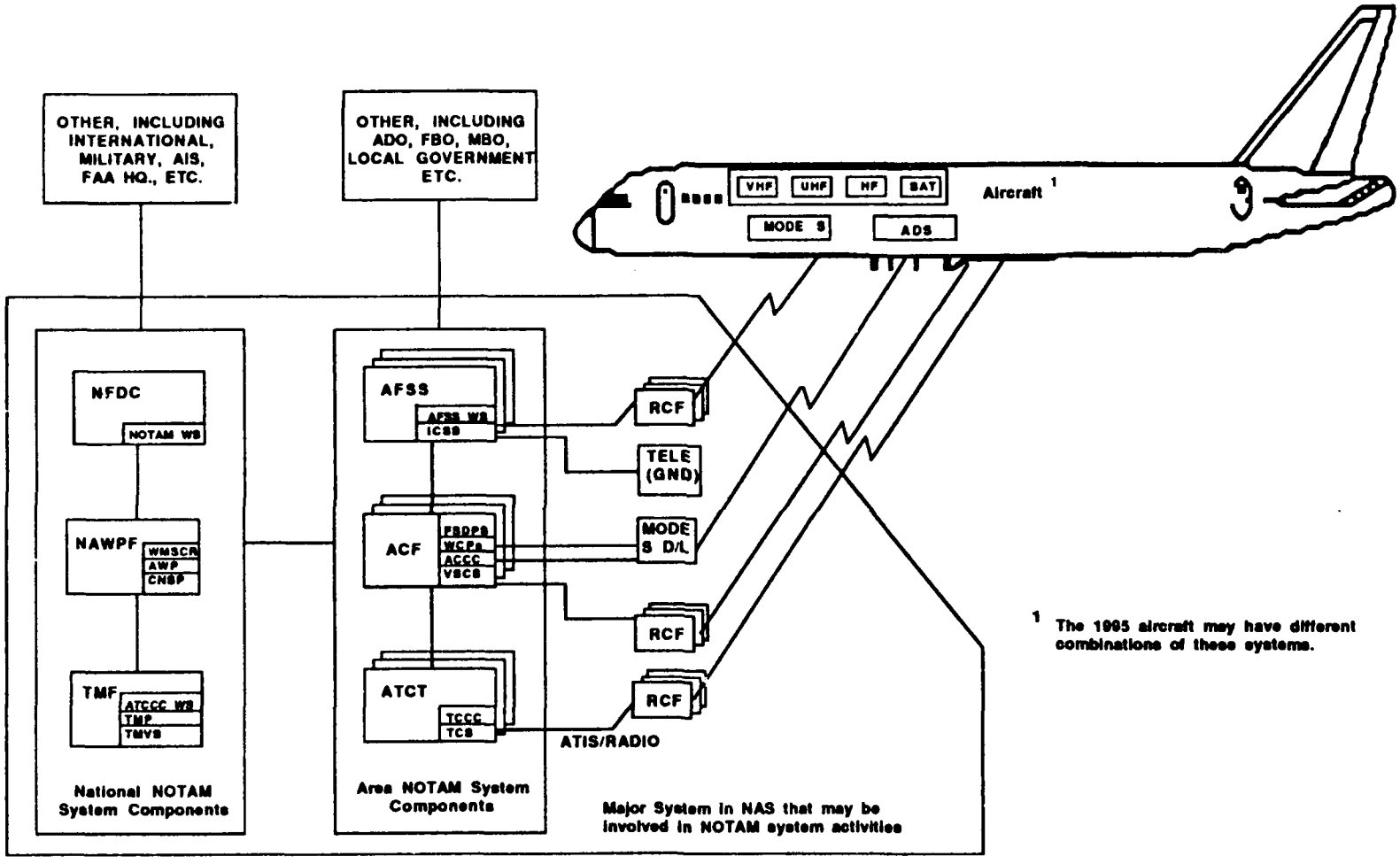

FIGURE 2-1
OVERVIEW OF NAS/USER INTERFACES FOR NOTAM SYSTEM FUNCTIONS

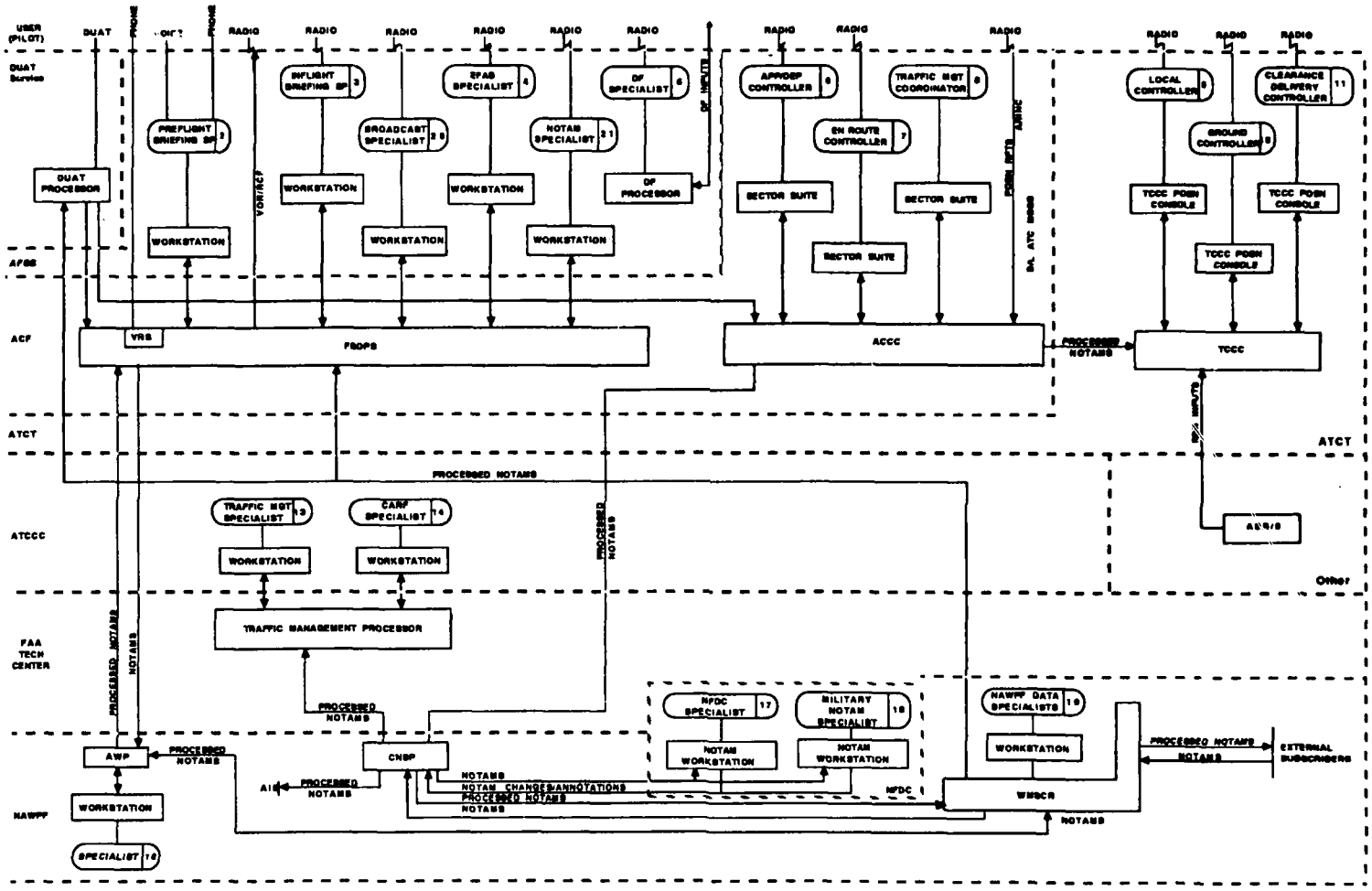

FIGURE 2-2
NOTAM SYSTEM BLOCK DIAGRAM

NOTAMs received at the NAS facilities are kept on file for use by specialists and users until no longer needed. NOTAMs also remain in CNSP and WMSCR data bases for access by domestic users and NAS specialists when required. Military and international subscribers access NOTAMs via the CNSP when necessary.

2.1.2 NAS operational positions

A statement and description of the functions provided by each specialist position follow. References to existing procedures manuals or other appropriate documentation are provided with each description.

Position 2: Flight Service Station (FSS) Preflight Briefing Specialist
Function: Provides NOTAMs in preflight briefings to pilots.
Description: Pilots are required to obtain pertinent weather and aeronautical information prior to beginning a flight. When called upon by a pilot to perform a preflight briefing, the preflight specialist obtains and provides NOTAMs affecting the proposed flight.

Procedures: Flight Services (FAA Order 7110.10H)
NOTAM Handbook (FAA Order 7930.2B)
Facility Operation and Administration (FAA Order 7210.3H)

Projects: NAS Plan (FSAS)
FSAS Specification (FAA-E-2684b)

Position 3: FSS Inflight Briefing Specialist
Function: Provides NOTAMs in inflight briefings to pilots.
Description: When called upon to perform an inflight pilot briefing, the inflight specialist obtains and provides NOTAMs affecting the proposed flight.

Procedures: Same as Position 2

Projects: Same as Position 2

Position 20: FSS NOTAM Specialist
Function: Originates NOTAMs relative to the AFSS flight plan area and distributes NOTAMs in the AFSS flight plan area as required.
Description: Upon receipt of data that meet NOTAM criteria, the NOTAM specialist verifies the information and generates a NOTAM. The specialist also monitors the currency of NOTAMs and cancels NOTAMs relative to his/her flight plan area.

Procedures: Same as Position 2

Projects: Same as Position 2

Position 21: FSS Broadcast Specialist
Function: Provides NOTAM information of a hazardous nature in VOR broadcasts.
Description: The broadcast specialist reviews NOTAMs relative to the AFSS flight plan area and includes NOTAMs of a hazardous nature in appropriate broadcasts along with other information.

Procedures: Same as Position 2

Projects: Same as Position 2

Position 6 and 7: Area Control Facility (ACF) Controller
Function: Coordinates in issuing NOTAMs pertaining to his/her area of responsibility within the ACF and delivers NOTAMs to pilots in flight as required.
Description: ACF personnel may receive or generate system status data that require a NOTAM to be generated. They forward the data to an AFSS or the NFDC for NOTAM origination, as appropriate. They deliver NOTAM information to pilots in flight when required.

Procedures: NOTAM Handbook (FAA Order 7930.2B)
Facility Operation and Administration (FAA Order 7210.3H)
Air Traffic Control (FAA Order 7110.65E)

Projects: Advanced Automation System (AAS) Specification (FAA-ER-130-005)
Operations Concept for the Advanced Automation System Man-Machine Interface

Position 8: TM Coordinator (TMC)
Function: Coordinates in issuing NOTAMs pertaining to the ACF area of responsibility.
Description: A TM coordinator receives or generates system status data that require a NOTAM to be generated and forwards the information to the appropriate specialist at the ATCCC for NOTAM origination.

Procedures: Traffic Management System (7210.47)
Special Military Operations (FAA Order 7610.46)

Projects: NAS Plan (TMS)

Position 9, 10, and 11: Airport Traffic Control Tower (ATCT) Controller
Function: Coordinates in issuing NOTAMs, assists in preparing Airport Terminal Information Service (ATIS) messages when necessary, and delivers appropriate NOTAM information to pilots as required.
Description: ATCT controllers receive, generate, and forward system status data to FSS specialists for NOTAM dissemination when necessary. NOTAMs received by ATCT controllers may be used in ATIS message preparation or may be delivered directly to a pilot via radio, when required.

Procedures: Same as Position 6 and 7

Projects: Same as Position 6 and 7
Operations Concept for TCCC Man-Machine Interface

Position 13: Traffic Management (TM) Specialist
Function: Originates TM NOTAMs and delivers NOTAMs to other flight operations personnel when required.
Description: TM specialists receive or generate system status data, originate TM NOTAMs, and provide NOTAM information to other specialists in the NAS if requested.

Procedures: Same as Position 8

Projects: Same as Position 8

Position 14: CARF Specialist
Function: Originates CARF NOTAMs and ACF altitude reservation NOTAMs.
Description: A CARF specialist receives information from military and ACF personnel and originates NOTAMs.

Procedures: Same as Position 8
Projects: Same as Position 8

Position 16: Aviation Weather Processor (AWP) Specialist
Function: Performs NOTAM editing when necessary.
Description: The AWP specialist edits domestic NOTAMs when required to support retrieval by specialists at the Automated Flight Service Station (AFSS).

Procedures: Flight Services (FAA Order 7110.10)
NOTAM Handbook (FAA Order 7930.2B)

Projects: NAS Plan (FSAS)
FSAS Specification (FAA-E-2684b)

Position 17: National Flight Data Center (NFDC) Specialist
Function: Monitors NOTAM system operations, originates NOTAMs, and serves as a liaison between the domestic NOTAM system and the United States military and international NOTAM systems.
Description: NFDC specialists ensure that information entering the NOTAM system meets NOTAM criteria. They originate NOTAMs when required and interface with military and international organizations involved in NOTAM handling.

Procedures: NOTAM Handbook (FAA Order 7930.2B)
United States NOTAM System (USNS) Users Manual

Projects: USNS System Design, Integrating the FAA and DOD NOTAM Requirements
Plan for Integrating the DOD NOTAM Requirements into the FAA's USNS

Position 18: Military NOTAM Specialist
Function: Serves as a liaison between the United States military NOTAM system and the domestic system.
Description: Military NOTAM specialists, located at the NFDC, provide assistance to NFDC specialists for military NOTAM handling.

Procedures: DOD NOTAM Directive (The United States Military NOTAM System, AFR 55-16)

Projects: Same as Position 17

Position 19: National Aviation Weather Processing Facility (NAWPF) Data Specialist
Function: Processes NOTAM subscriber requests and maintains WMSCR distribution tables.
Description: The NAWPF data specialist receives information updating NOTAM reporting stations and subscriber requirements for NOTAMs. He/she uses this information to perform WMSCR table maintenance activities.

Procedures: Data Communications (FAA Order 7110.80D)

Projects: NAS Plan (WMSCR)
WMSCR System Specification (FAA-E-2764a)

2.1.3 Other organizations

Any number of external organizations can get involved in NOTAM system operations. For example, a specialist at the AFSS can originate NOTAMs using system status data received from a regional office, an airport manager, a state or local government agency, or almost any other source. NOTAM distribution may be accomplished by an airline company for its own pilots, using processed NOTAMs obtained from the NAS.

2.1.4 User systems

NAS is required to make aeronautical information (in this case, NOTAMs) available to pilots without the aid of a specialist. For flight planning, a pilot may obtain NOTAMs via a private DUAT or the VRS. The VRS can be accessed by using a touch-tone telephone. Other pilots have access to NOTAMs via radio and the Mode S Data Link (MSDL).

2.2 Information

Major sources of NOTAM information for pilots who wish to communicate with a person instead of interrogating a data base are the specialists at the AFSSs (by telephone and radio) and the controllers at the ACFs and the ATCTs (by radio). Other NAS specialists may also get involved in NOTAM system operations. The types of NOTAMs available to NAS users and specialists may be grouped according to their origin as follows:

1. Domestic NOTAMs
2. International NOTAMs
3. Military NOTAMs

NOTAMs are also available to United States military users and selected foreign users.

2.2.1 Domestic NOTAMs

Domestic NOTAMs are generated by NAS personnel. They report conditions pertaining to NAS components such as a landing area, an en route air navigation aid (Navaid), an interim flight procedure, or special use airspace. The CNSP serves as the focal point for processing domestic NOTAMs. These include NOTAM (D)s, FDC NOTAMs, CARF NOTAMs, TM NOTAMs, or other types of NOTAMs as required. Domestic NOTAMs are distributed to NAS users and specialists via the WMSCR/NADIN interface or the CNSP/NADIN interface.

Domestic Published NOTAMs are processed and maintained by the Class II NOTAM system. Published NOTAMs are either too long or otherwise inappropriate (e.g., requires graphics) for processing via the CNSP. They are documented in the NOTAM Publication. An abbreviated NOTAM message is processed and distributed for each domestic Published NOTAM by the CNSP in the same manner as for other domestic NOTAMs. Thus a specialist or user is alerted as to whether Published NOTAMs exist for a specific location or area without having to consult the NOTAM Publication first.

2.2.2 International NOTAMs

International NOTAMs are generated by domestic and foreign International NOTAM specialists. Criteria, procedures, and formats for international NOTAM origination are contained in ICAO Annex 15, Aeronautical Information Services and ICAO Document 8126, Aeronautical Information Services Manual. Foreign international NOTAMs are received via the AFTN/NADIN interface in the ICAO NOTAM format. They are reformatted by the CNSP using the domestic NOTAM format and distributed to NAS users and specialists. United States domestic NOTAMs qualifying for international distribution are reformatted using the ICAO NOTAM format and distributed to other countries via the AFTN/NADIN interface. All United States international NOTAMs are issued by NFDC specialists.

2.2.3 Military NOTAMs.

Criteria and procedures for military NOTAM origination are contained in the DOD NOTAM Directive. Military NOTAMs are received from the United States Military NOTAM System in the ICAO NOTAM format. They are reformatted using the domestic NOTAM format and distributed to NAS users and specialists as required, unless prohibited by a military NOTAM specialist at the NFDC. Domestic and international NOTAMs required by military personnel are forwarded to the United States military NOTAM System by the CNSP.

2.3 Functions

The following paragraphs provide a more detailed description of the functions performed by the specialists' positions introduced in Section 2.1.2. Specialists providing similar services are covered as a group. Operational flow diagrams are used to illustrate the information flow between the specialist and the user, other specialists, or data processing equipment. Pertinent references from the NASSRS that specify the functions performed by the specialists are included with each description.

2.3.1 FSS preflight briefing specialist (position 2)

NOTAM system operations performed by the FSS preflight specialist are illustrated in figure 2-3.

a. Obtain information. The preflight specialist obtains NOTAMs associated with the route of flight from the AFSS work station. When originated, NOTAMs are further classified with a "type" designator to aid in retrieval during briefings. The "type" designators are "A" for area, "E" for en route, and "T" for terminal. For a route-oriented briefing, all three types of NOTAM (D)s (A, E, and T) are displayed for the departure point, destination, and alternate destination.

Upon request by the pilot, the specialist provides any appropriate published NOTAMs obtained from the NOTAM Publication. NOTAM information can also be obtained from the "International Notices to Airmen" publication.

NASSRS 3.1.2

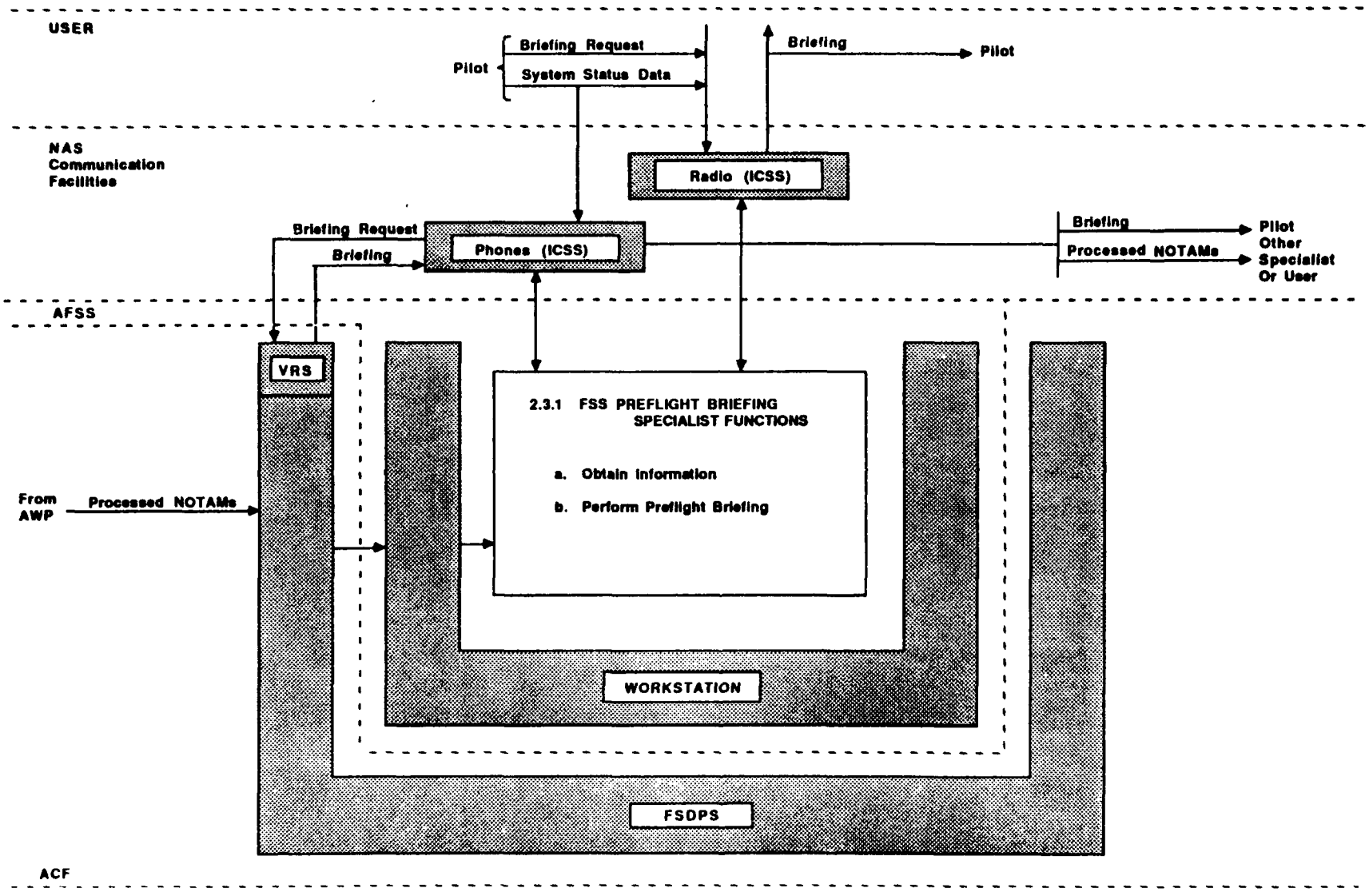

FIGURE 2-3
OPERATIONAL FLOW DIAGRAM, POSITION 2:
FSS PREFLIGHT BRIEFING SPECIALIST PERFORMING NOTAM OPERATIONS

b. Perform preflight briefing. FSS specialists perform standard, abbreviated, and outlook preflight briefings. A standard briefing is provided to pilots who need weather and NOTAM information and have not already received a detailed briefing either from a specialist or through an automated source, such as a DUAT. An abbreviated briefing is provided when a pilot requests only specific information. An outlook briefing is provided when the proposed departure time is 6 or more hours from the time of the briefing or when the proposed flight is scheduled to begin after the valid time of the available forecast material. NOTAMs are provided in all three types of briefings.

NASSRS 3.1.2

2.3.2 FSS inflight briefing specialist (position 3)

NOTAM system operations performed by the FSS inflight specialist are illustrated in figure 2-4.

a. Obtain information. The inflight specialist obtains NOTAM information associated with the route of flight from the same sources used by the preflight specialist.

NASSRS 3.1.2

b. Perform inflight briefings. FSS specialists provide briefings to inflight pilots via radio. As part of these briefings, the specialist provides any requested NOTAM information, and also any other NOTAM information that may be of assistance to the pilot.

NASSRS 3.1.2

c. Relay information to NOTAM specialist. The FSS inflight specialist relays to the NOTAM specialist any information received from a pilot that may be used to generate a NOTAM.

NASSRS 3.1.2.A

2.3.3 FSS NOTAM specialist (position 20)

NOTAM system operations performed by the FSS NOTAM specialist are illustrated in figure 2-5.

a. Receive information. The FSS NOTAM specialist is responsible for collecting NAS hazardous condition or system status data that may be used in originating NOTAMs for the AFSSs flight plan area. This information can come from pilots, airport managers, state and local government agencies, air traffic controllers, systems engineers, flight inspectors, and other sources.

NASSRS 3.1.2.A

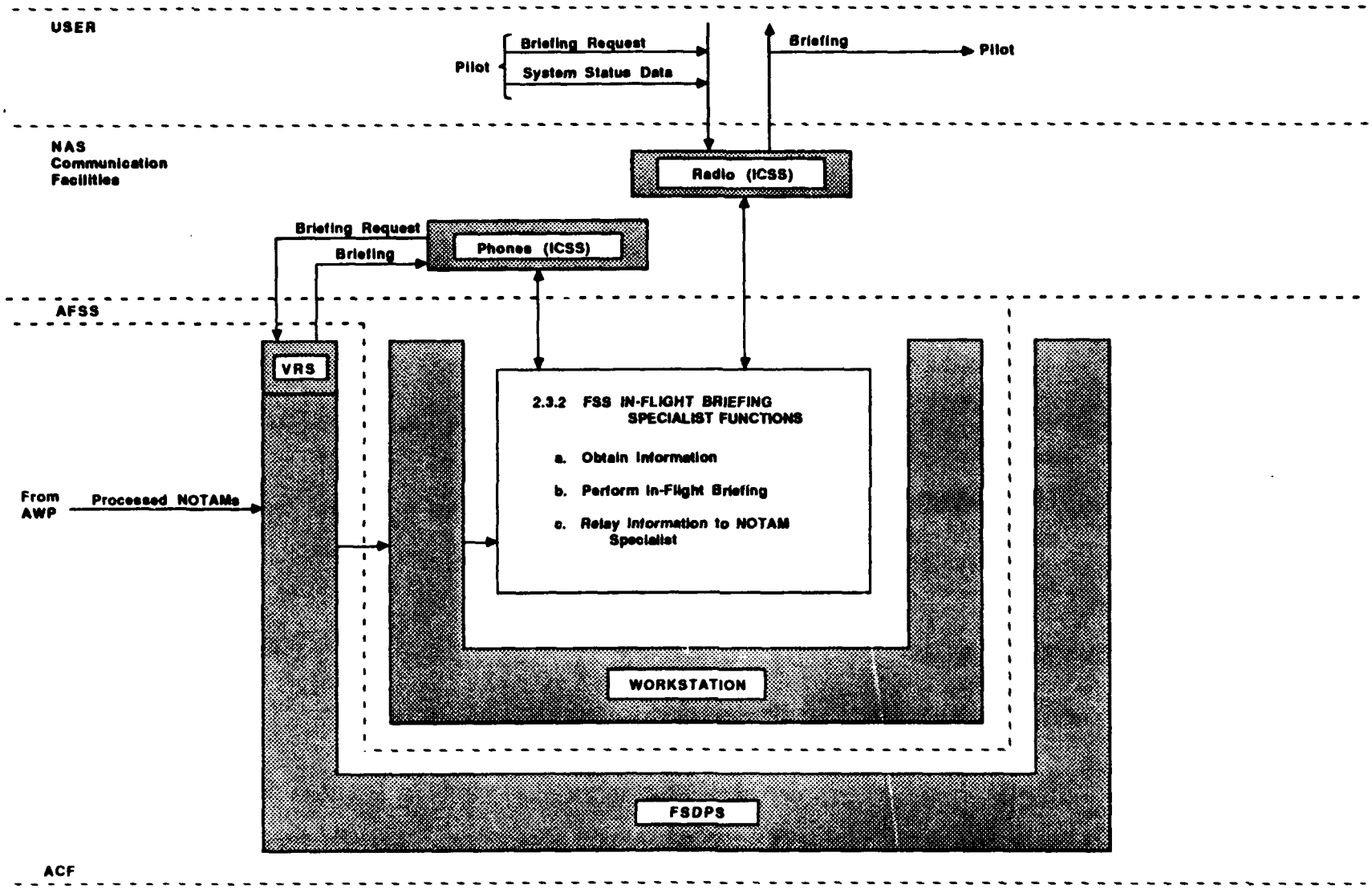

FIGURE 2-4
OPERATIONAL FLOW DIAGRAM, POSITION 3:
FSS IN-FLIGHT BRIEFING SPECIALIST PERFORMING NOTAM OPERATIONS

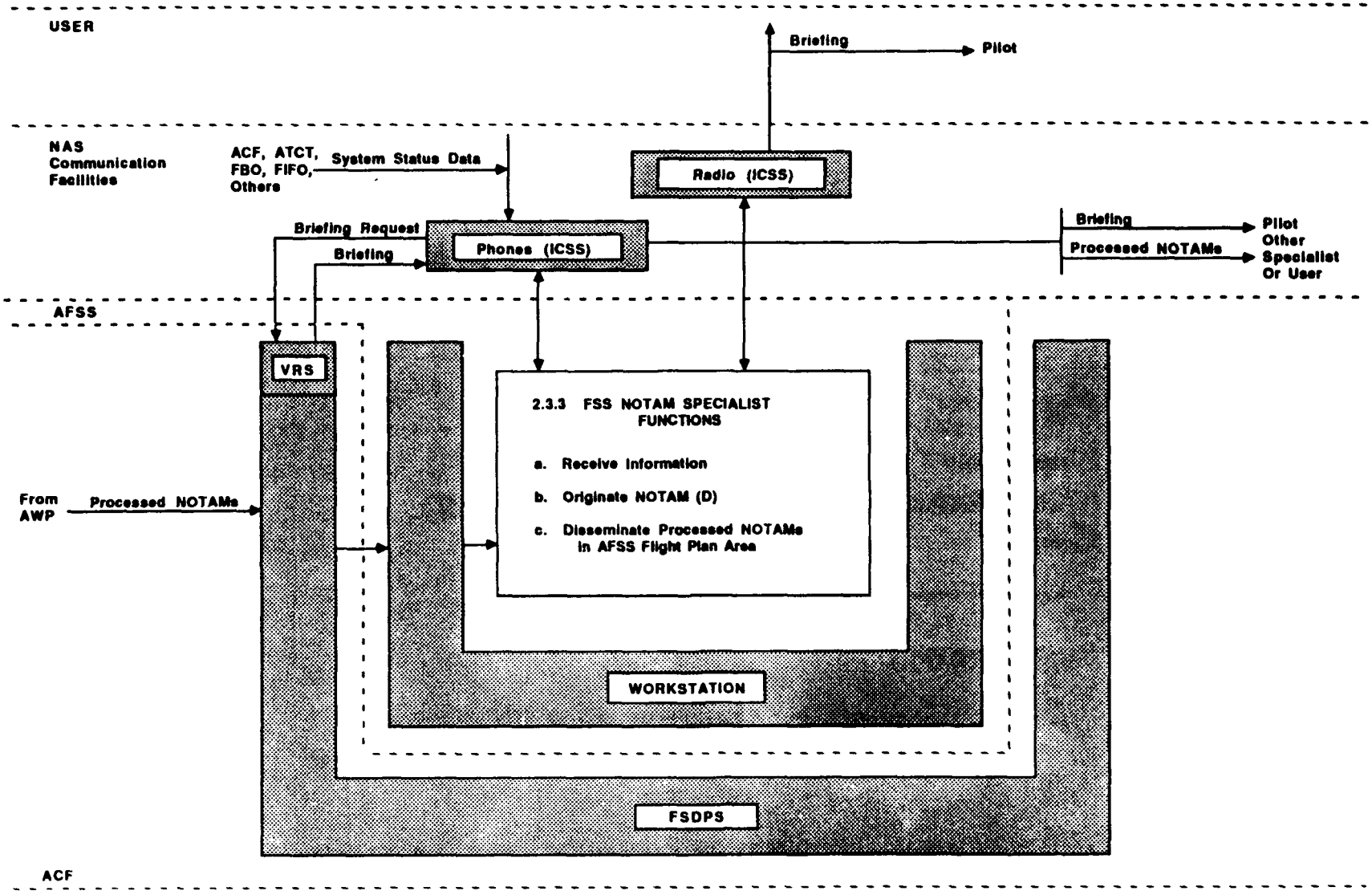

FIGURE 2-5
OPERATIONAL FLOW DIAGRAM, POSITION 20:
FSS NOTAM SPECIALIST PERFORMING NOTAM OPERATIONS

b. Originate NOTAM (D). The FSS NOTAM specialist originates NOTAMs from the various sources mentioned above. Prior to NOTAM generation, the specialist validates, if necessary, the information received, and determines whether it meets NOTAM criteria. When entering the NOTAM, the specialist classifies it as a NOTAM (D). The specialist uses the criteria published in the NOTAM Handbook to determine the correct classification. When formatting the NOTAM, the specialist also includes the "type" designators ("A" for area, "E" for en route, and "T" for terminal) to aid in retrieval for briefing purposes.

NASSRS 3.1.2.A

c. Disseminate processed NOTAMs in AFSS flight plan area. FSS NOTAM specialists are responsible for disseminating NOTAM information within their AFSS flight plan area. When necessary, they distribute NOTAM information locally to the area affected by the aid, service, or hazard being advertised in the NOTAM. This includes distribution to air traffic facilities, local aviation companies, and other interested users as required. Various means are used to distribute NOTAMs in the flight plan area.

NASSRS 3.1.2

2.3.4 FSS broadcast specialist (position 21)

NOTAM system operations performed by the FSS broadcast specialist are illustrated in figure 2-6.

a. Review NOTAMs. The FSS broadcast specialist reviews all NOTAMs relative to the AFSS flight plan area for information of a hazardous nature that could affect aircraft in flight.

NASSRS 3.1.2

b. Add NOTAMs to broadcasts. When appropriate, the broadcast specialist broadcasts NOTAM information of a hazardous nature locally over a VOR using the voice channel override capability.

NASSRS 3.1.2

2.3.5 ACF controller (position 6 and 7)

Figure 2-7 illustrates NOTAM system operations that may be performed by ACF controllers. Occasionally, they generate or receive system status data, that meet NOTAM criteria, from pilots or other sources. They also deliver NOTAMs to pilots or other flight operations personnel when required.

a. Generate or receive system status data from pilot or other source and coordinate in NOTAM issuance. In performing their duties, controllers may generate or receive system status information from pilots via radio or from other sources. They validate the information if necessary and forward it via telephone to the appropriate source (AFSS, NFDC, or ATCCC) for NOTAM generation.

NASSRS 3.1.2.a.1.a
3.1.2.B

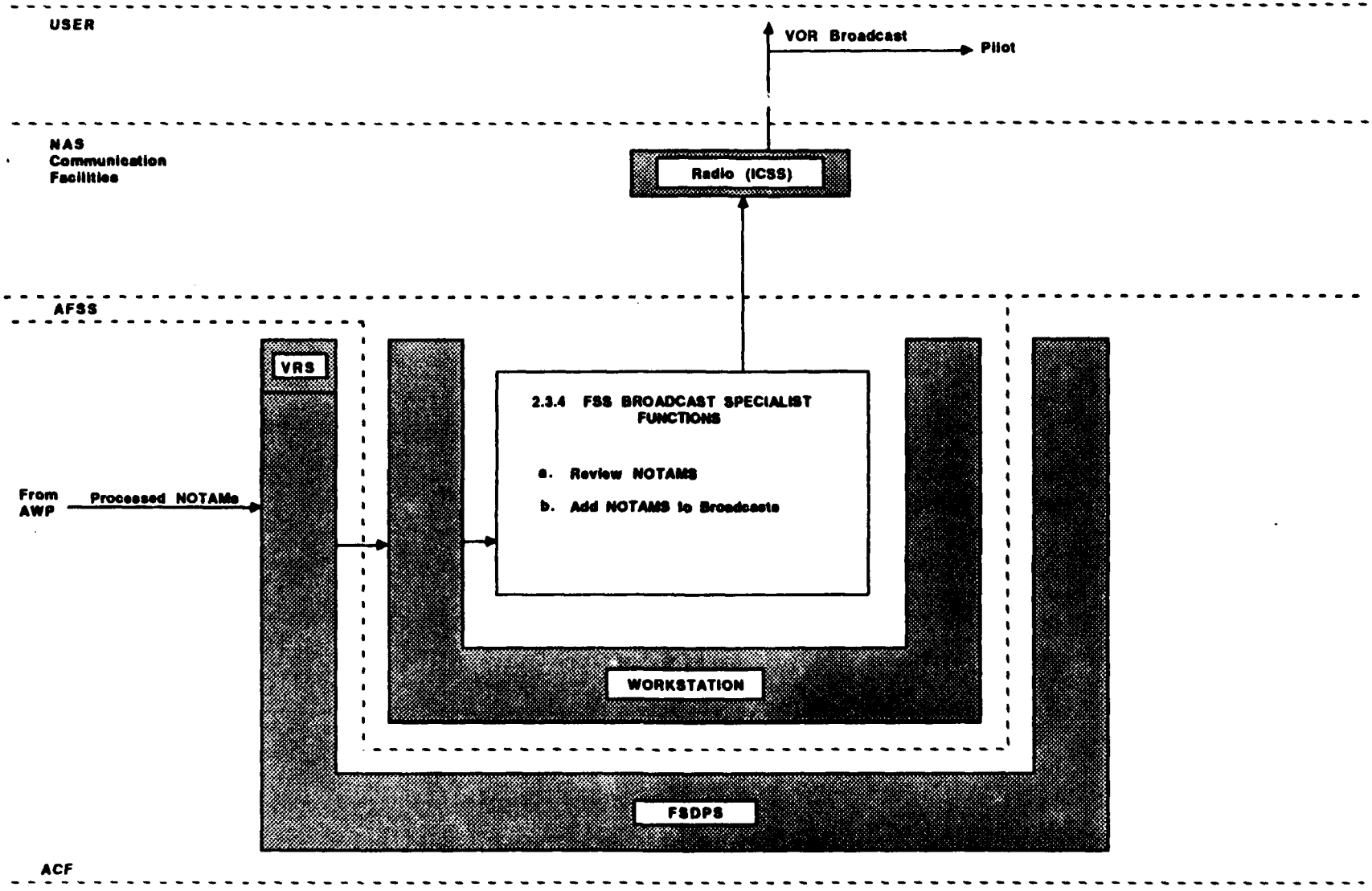

FIGURE 2-6
OPERATIONAL FLOW DIAGRAM, POSITION 21:
FSS BROADCAST SPECIALIST PERFORMING NOTAM OPERATIONS

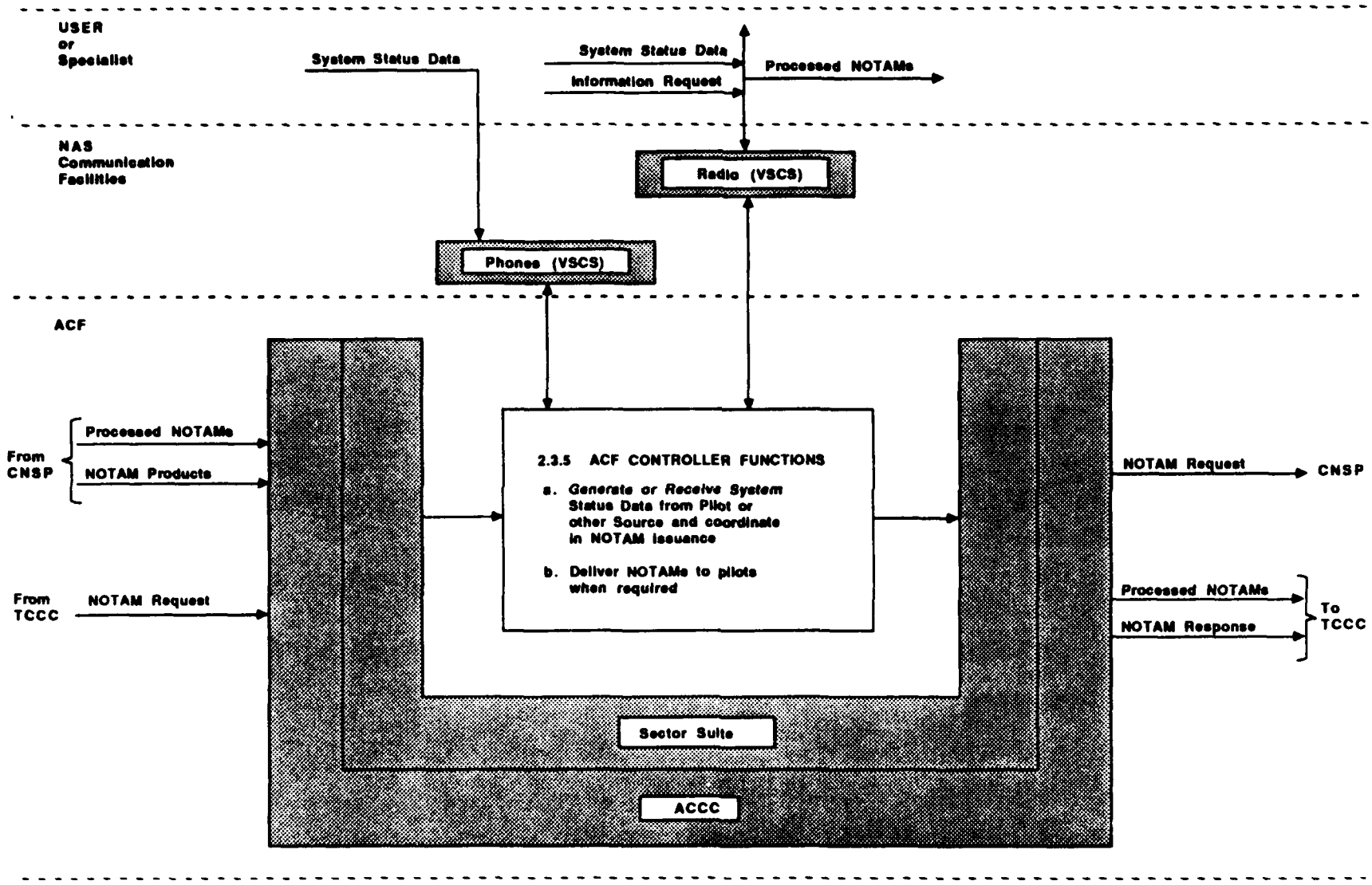

FIGURE 2-7
OPERATIONAL FLOW DIAGRAM, POSITIONS 6 & 7:
ACF CONTROLLER PERFORMING NOTAM OPERATIONS

b. Deliver NOTAMs to pilots when required. ACF controllers receive processed NOTAMs via their sector suite displays. The ACCC automatically forwards the appropriate NOTAMs to the appropriate displays. The controllers may use this information in performing their duties. When necessary, they forward NOTAMs to pilots.

NASSRS 3.1.2.a.1.a

2.3.6 TM coordinator (position 8)

Figure 2-8 illustrates NOTAM system operations that may be performed by TM coordinators. TM coordinators may generate or receive system status information that meet NOTAM criteria.

a. Receive or generate system status data and coordinate in NOTAM issuance. TM coordinators may receive information from the military or other sources that meet NOTAM criteria. They validate the information if necessary and forward it to the TM specialist or CARF specialist for NOTAM origination.

NASSRS 3.1.2.a.1.a

2.3.7 ATCT controller (position 9, 10, and 11)

NOTAM system operations performed by tower controllers are illustrated in figure 2-9. Tower controllers may generate or receive system status information from and deliver processed NOTAMs to pilots and other flight operations personnel the same as ACF controllers. Tower controllers may also get involved in amending the ATIS message, which includes NOTAM information.

a. Generate or receive system status information from pilot or other source and coordinate in NOTAM issuance. In performing their functions, ATCT controllers may generate or receive system status information from pilots via radio or from other sources. They validate the information, if necessary, and forward it to the AFSS for NOTAM dissemination.

b. Amend ATIS message when necessary. The TCCC automatically prepares the ATIS message for broadcast to pilots. Tower controllers may access the ATIS message and amend it if necessary.

NASSRS 3.1.2.C

c. Deliver processed NOTAMs to pilots when required. ATCT controllers receive processed NOTAMs via their tower position consoles (TPCs). The ACCC automatically forwards the appropriate NOTAMs to the appropriate displays via the TCCC. When necessary, ATCT controllers forward NOTAMs to pilots.

2.3.8 TM specialist (position 13)

The primary NOTAM-handling functions of TM specialists are illustrated in figure 2-10. They originate TM NOTAMs and deliver NOTAM information to other specialists when required.

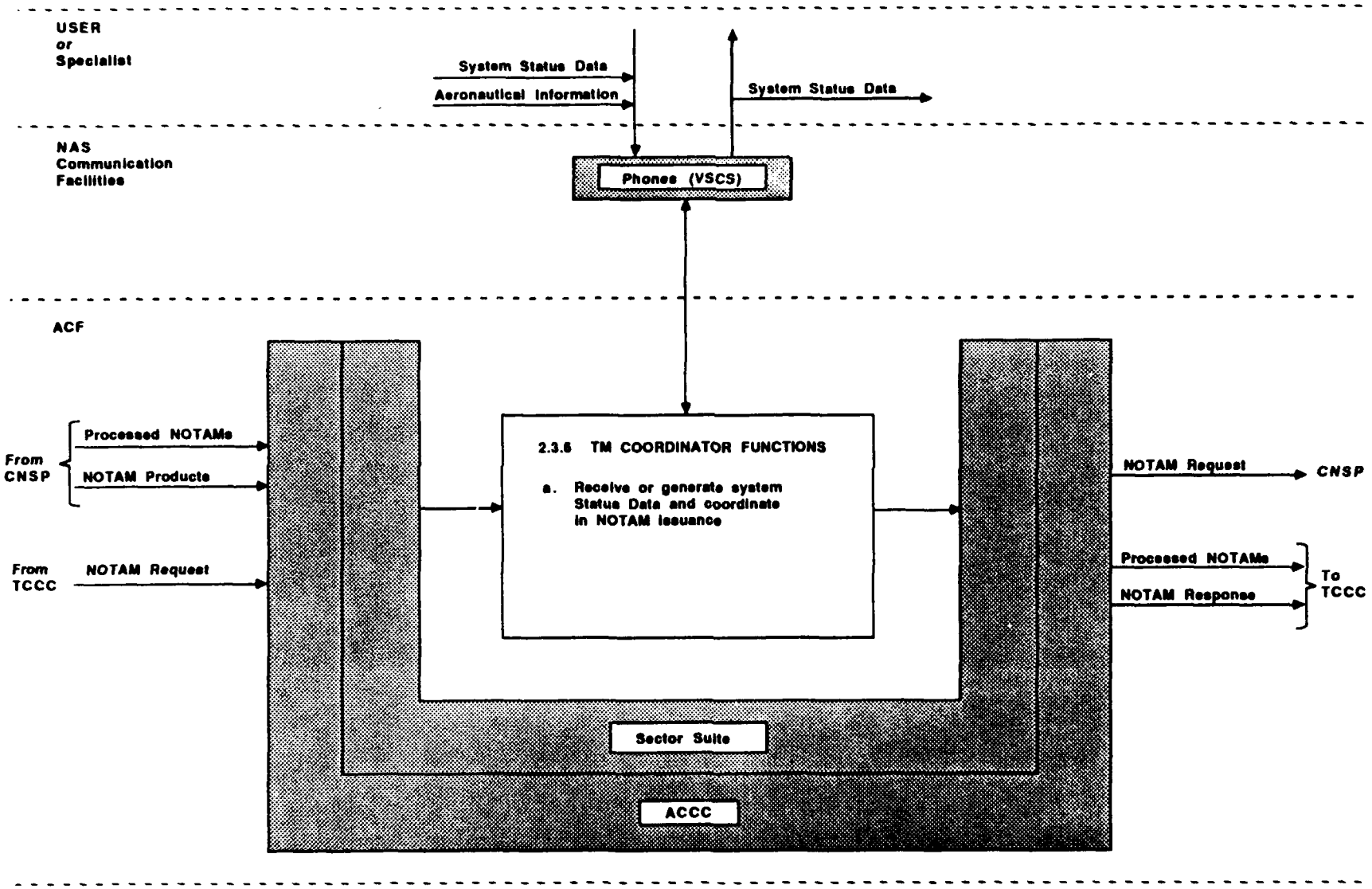

FIGURE 2-8
OPERATIONAL FLOW DIAGRAM, POSITION 8:
TM COORDINATOR PERFORMING NOTAM OPERATIONS

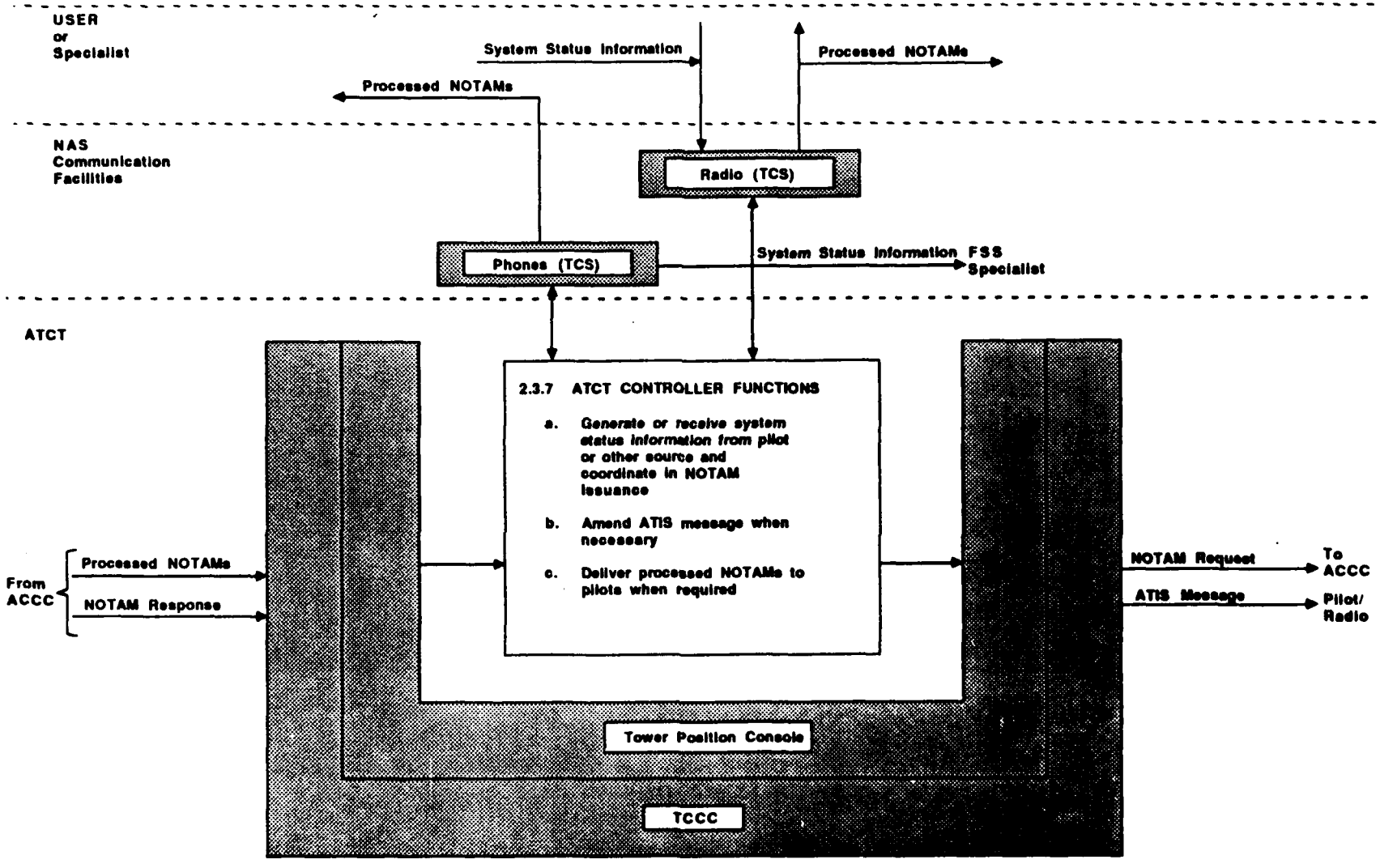

FIGURE 2-9
OPERATIONAL FLOW DIAGRAM, POSITIONS 9, 10 & 11:
ATCT CONTROLLER PERFORMING NOTAM OPERATIONS

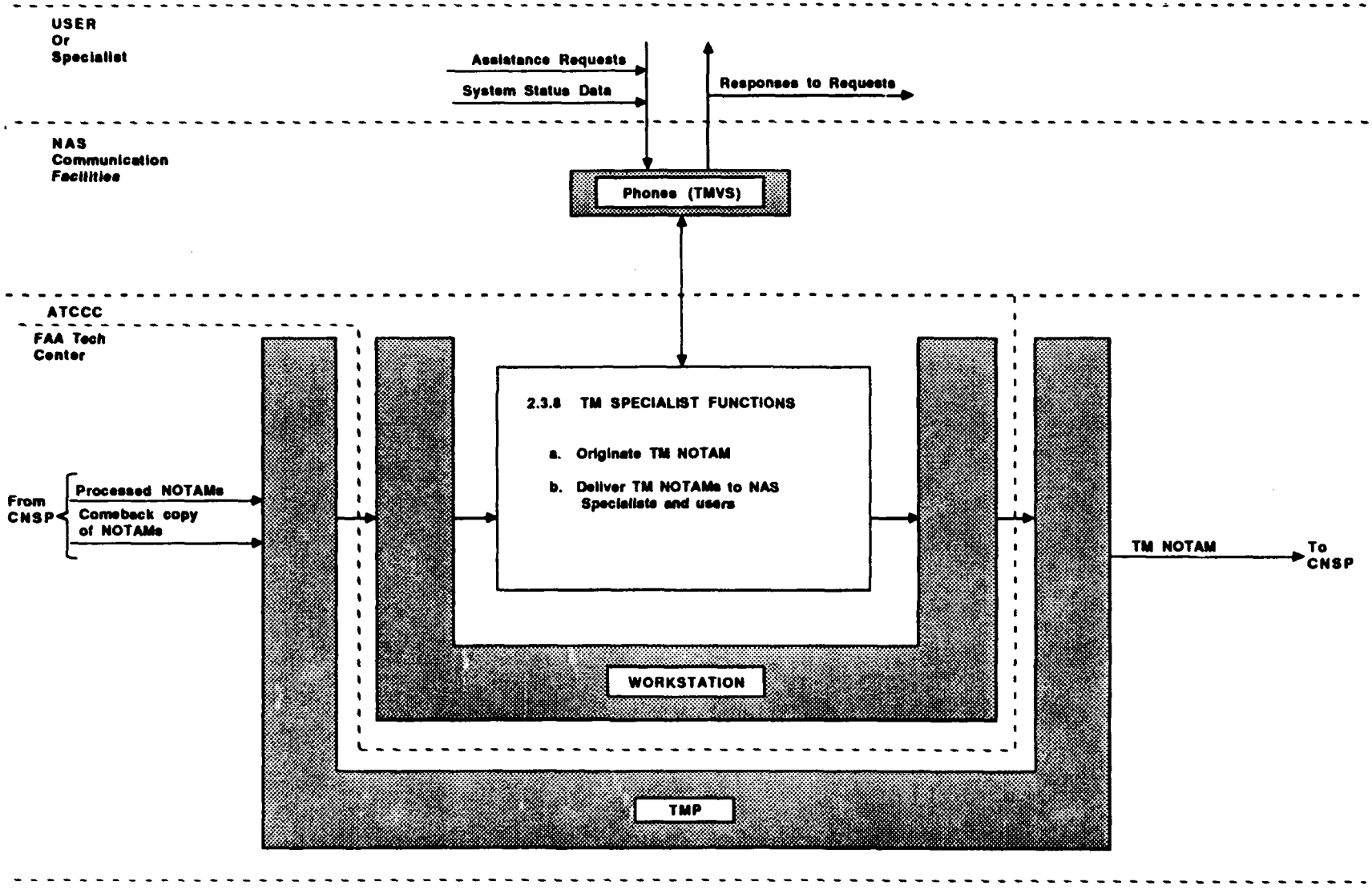

FIGURE 2-10
OPERATIONAL FLOW DIAGRAM, POSITION 13:
TM SPECIALIST PERFORMING NOTAM OPERATIONS

a. Originate TM NOTAM. TM specialists at the ATCCC, concerned with traffic flow management functions, receive or generate system status data that meet TM NOTAM criteria. When this happens, the specialist originates a TM NOTAM via the ATCCC Work Station and receives a comeback copy as confirmation of input (LIDD, p. IV-71). All system status information meeting TM NOTAM criteria is forwarded to TM specialists for NOTAM origination.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

b. Deliver TM NOTAMs to NAS specialists and users. TM specialists deliver TM NOTAMs to other NAS specialists and users when necessary.

2.3.9 CARF specialist (position 14)

The primary NOTAM system operations performed by CARF specialists are illustrated in figure 2-11. CARF specialists originate CARF NOTAMs and deliver NOTAM information to other specialists or users when required.

a. Originate CARF NOTAM. CARF specialists at the ATCCC receive information from military sources or from the ACF concerning altitude reservations. The specialist generates a CARF NOTAM via the ATCCC Work Station and receives a comeback copy as confirmation of input.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

b. Deliver CARF NOTAMs to NAS specialists and users. When necessary, CARF specialists provide CARF NOTAMs to other NAS specialists and users.

2.3.10 AWP specialist (position 16)

The primary NOTAM-handling functions of the AWP specialist, located at the NAWPF, are illustrated in figure 2-12. The AWP specialist edits specific types of NOTAMs when required.

a. Edit "AREA" (A) type NOTAMs to support retrieval by FSS specialists. NOTAMs with a type "A" designator are those which pertain to an area rather than a specific affected location. Type "A" NOTAMs received at the AWP will be routed to the AWP specialist. The specialist will insert two-letter affected area identifiers to support NOTAM retrieval for pilot briefings by FSS specialists. Any other manual editing required to support retrieval of NOTAMs via the FSDPS will also be performed by the AWP specialist.

NASSRS 3.1.2.D

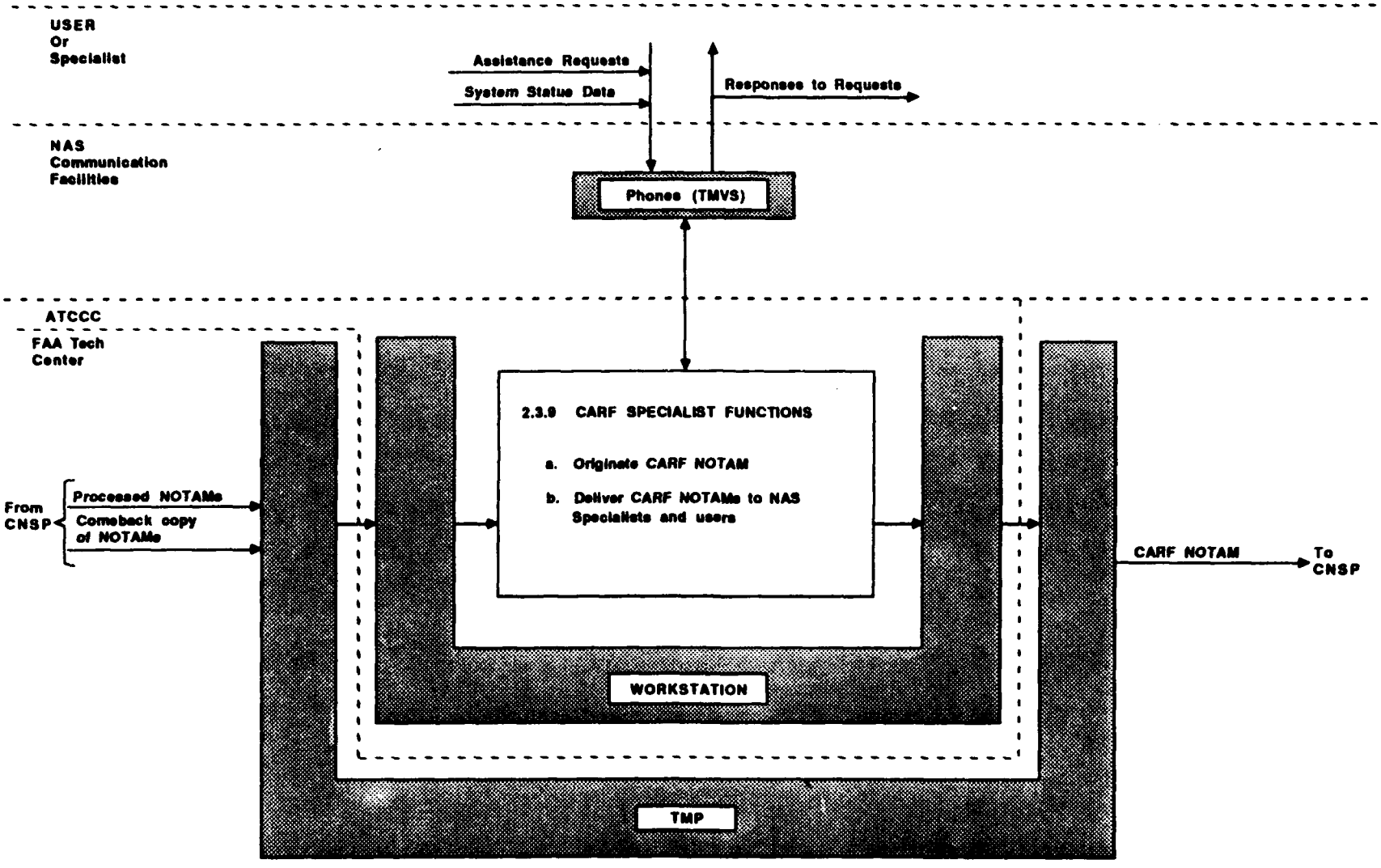

FIGURE 2-11
OPERATIONAL FLOW DIAGRAM, POSITION 14:
CARF SPECIALIST PERFORMING NOTAM OPERATIONS

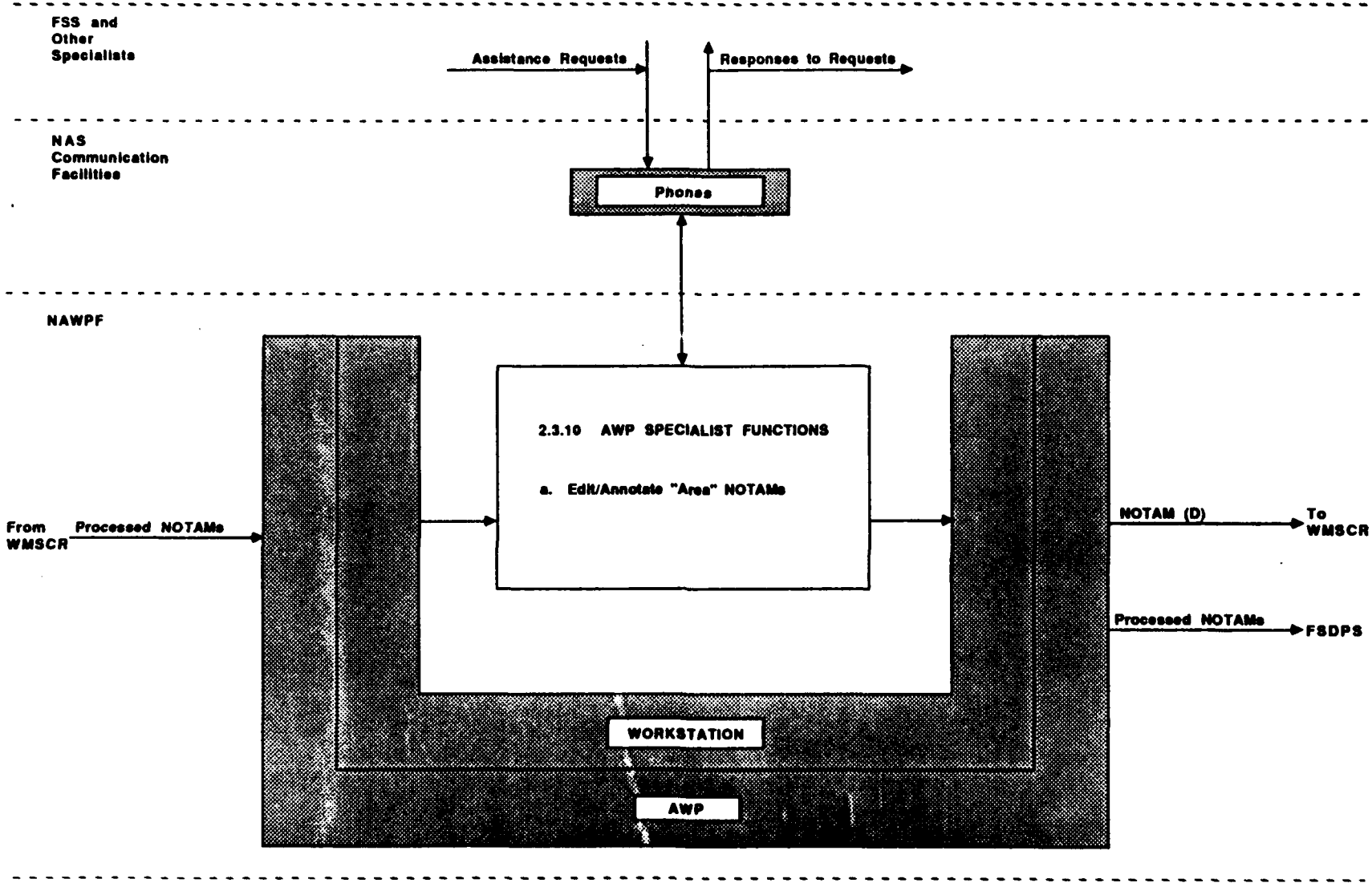

FIGURE 2-12
OPERATIONAL FLOW DIAGRAM, POSITION 16:
AWP SPECIALIST PERFORMING NOTAM OPERATIONS

2.3.11 NFDC specialist (position 17)

Figure 2-13 illustrates the primary functions performed by an NFDC specialist and the information flow to and from the specialist. The NFDC NOTAM Office serves as the single National NOTAM Office and International NOTAM Office (INOF) in the NAS. NFDC specialists interface with INOF specialists from other countries, with in-house military NOTAM specialists, with other NAS specialists, and with external subscribers in performing their duties. They originate FDC NOTAMs, United States international NOTAMs, and other types of NOTAMs when required. In addition, they edit NOTAMs when necessary, assist other NAS specialists in performing NOTAM system operations, and monitor NOTAM system operations.

a. Monitor and operate NOTAM system. NFDC specialists monitor NOTAM system operations for compliance with the criteria and procedures set forth in the NOTAM Handbook. They edit NOTAMs when required, perform CNSP table maintenance activities, and periodically transmit NOTAM lists to NAS specialists and users. They interface with FSS specialists and other NAS specialists when performing these activities.

NASSRS 3.1.2.a.1.a
USNS User's Manual

b. Originate FDC/other domestic NOTAMs. NFDC specialists originate and transmit FDC and other domestic NOTAMs using system status data received from various sources including FAA Headquarters personnel, ACFs, regional offices, FSS specialists, external sources, etc. They also support the military NOTAM specialist by issuing military NOTAMs if necessary. System status data may be received via telephone, letter, or other means. Other information; e.g., FDC data, can be received via the NOTAM Work Station, the CNSP, and the Aeronautical Information System (AIS). NFDC specialists validate information prior to NOTAM origination when necessary.

NASSRS 3.1.2.a.2
3.1.2.a.4

c. Format and issue international NOTAMs. NFDC specialists reformat and transmit domestic NOTAMs which qualify for distribution to other countries. Occasionally, flight service specialists receive international system status data concerning non-NAS aeronautical facilities and forward them to NFDC specialists for NOTAM origination.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

d. Edit international and military NOTAMs for distribution to NAS subscribers. International and military NOTAMs are received by the CNSP in the ICAO NOTAM format. The CNSP reformats these NOTAMs using the domestic NOTAM format and forwards them to NFDC specialists. NFDC specialists ensure that these NOTAMs are properly formatted for distribution in the NOTAM system.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

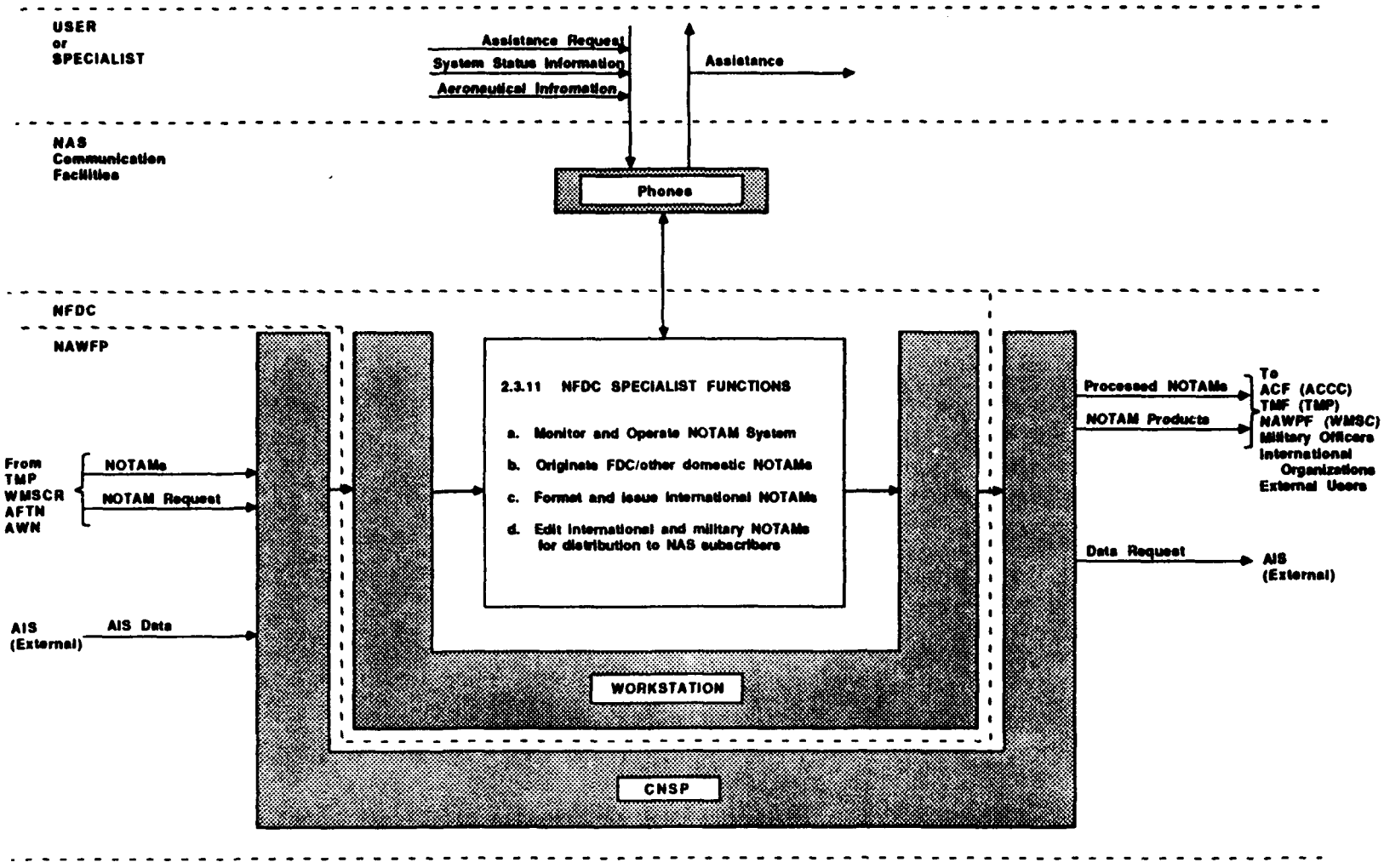

FIGURE 2-13
OPERATIONAL FLOW DIAGRAM, POSITION 17:
NFDC SPECIALIST PERFORMING NOTAM OPERATIONS

2.3.12 Military NOTAM specialist (position 18)

Figure 2-14 illustrates the primary functions of a military NOTAM specialist, located at the NFDC, and the corresponding information flow. Military NOTAM specialists work side-by-side with NFDC specialists and assist in handling military NOTAMs. They perform liaison activities and receive system status information from military specialists. When it is desirable, they can prohibit the distribution of military NOTAMs to NAS subscribers.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

a. Receive system status information. The military NOTAM specialist receives system status information from military specialists. They then filter this information and pass the appropriate data on to the NFDC specialist.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

b. Perform military NOTAM system liaison activities. Military NOTAM specialists perform liaison activities between the military and domestic NOTAM systems.

NASSRS 3.1.2.a.1.a
3.1.2.a.2

2.3.13 National aviation weather processing facility data specialist (position 19)

The primary NOTAM handling functions of a NAWPF data specialist are illustrated in figure 2-15. These specialists receive aeronautical information from NAS specialists, process subscriber requests for NOTAM information, and perform table maintenance activities to ensure that subscribers receive the required information.

a. Receive aeronautical information from NAS specialists. NAWPF data specialists receive aeronautical information changes from NAS specialists located at FAA Headquarters--e.g., a location identifier for a new weather reporting station. They use the information to update the WMSCR data files.

NASSRS 3.1.2.a.1.a
3.1.2.D.1

b. Process user requests to receive NOTAM information. NAWPF data specialists receive subscriber update requests for specific NOTAM information from NAS specialists located at FAA Headquarters. They update WMSCR distribution files to ensure that the required NOTAMs are distributed to the appropriate subscribers automatically and upon request.

NASSRS 3.1.2.a.1.a
3.1.2.D.1

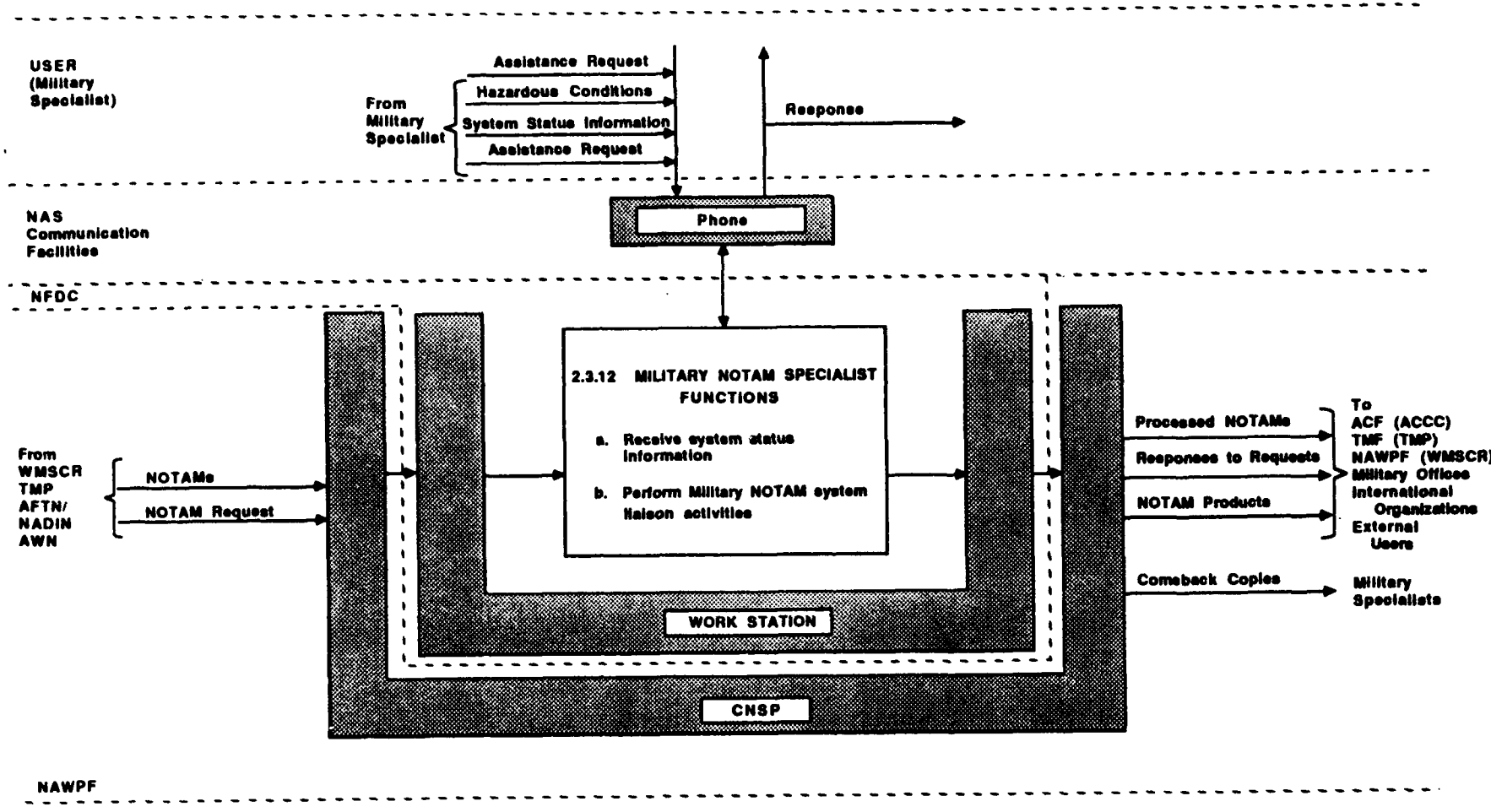

FIGURE 2-14
OPERATIONAL FLOW DIAGRAM, POSITION 18:
MILITARY NOTAM SPECIALIST PERFORMING NOTAM OPERATIONS

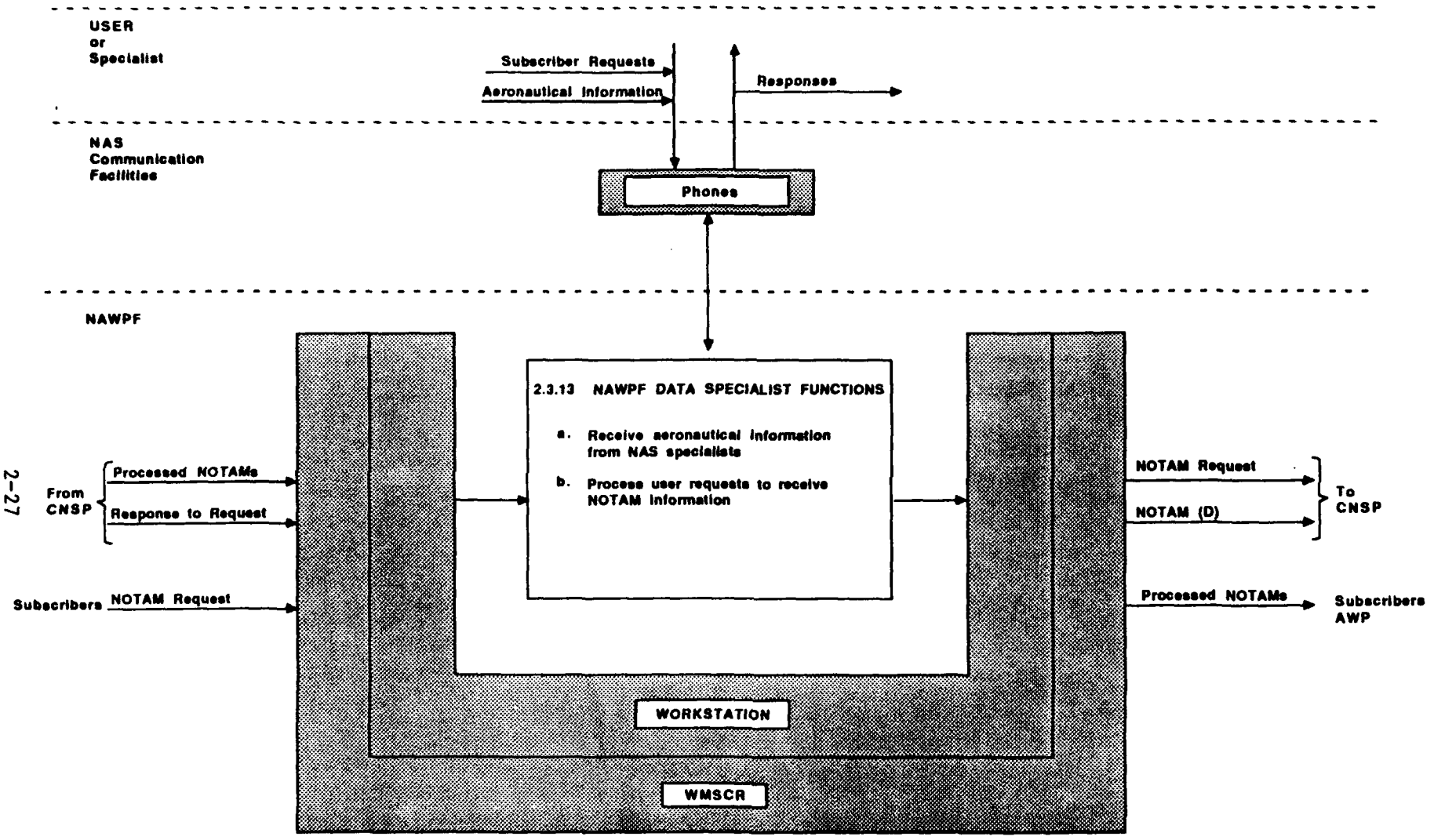

FIGURE 2-15
OPERATIONAL FLOW DIAGRAM, POSITION 19:
NAWPF DATA SPECIALIST PERFORMING NOTAM OPERATIONS

2.4 Correlation with Operational Requirements

Table 2-1 summarizes the correlation of the NOTAM system operational requirements of NASSRS with the paragraphs describing the functions being performed by specialists/controllers. All NOTAM system paragraph numbers of NASSRS are listed; paragraphs which are introductory in nature, which do not state an explicit operational requirement, or which reference other portions of NASSRS are indicated with a dash. The fact that a correlation is shown between a requirements paragraph and a paragraph describing the specialist/controller functions performed should not be construed as indicating that the requirement is completely fulfilled.

2.5 Operational Sequences

The Operational Sequence Diagram illustrates a common sequencing of functions described in Section 2.3 above, showing how the various specialists interact with the users, other specialists, and outside organizations. The reference numbers shown in the action rectangles and decision triangles progress as time progresses during the particular function being portrayed. The letters preceding the action statements in the action rectangles correspond to the functions on figures 2-3 through 2-15. Not all functions are shown.

2.5.1 NOTAM origination by FSS NOTAM specialist

Figure 2-16 illustrates an FSS NOTAM specialist performing NOTAM origination functions. It covers the flow of information from the time a NAS change occurs through the storage of the NOTAM in the NOTAM data base. The FSS NOTAM specialist receives system status data from almost any source (1), validates the information (2), and formulates a NOTAM (D), using the AFSS Work Station and the FSDPS (3): The NOTAM (D) is transmitted from the FSDPS to the AWP (4), from the AWP to the WMSCR (5), from the WMSCR to the CNSP (6): The CNSP edits the NOTAM (7): If the NOTAM does not pass the edit, it is sent to the NFDC specialist via the NOTAM Work Station (8): The NFDC specialist edits the NOTAM and transmits it back to the CNSP (9): The CNSP processes the NOTAM, stores it in the domestic NOTAM data base (10), and transmits it to the WMSCR, TMP, and ACCC (11) (also military and international NOTAM systems if required).

2.6 Operational Scenarios

Figures 2-17 and 2-18 present operational sequences for specific hypothetical situations (scenarios). They show detailed functional sequences and interactions between specialists and users, among specialists, or between specialists or users and equipment.

2.6.1 Obtain NOTAMs in preflight pilot briefing via telephone

Figure 2-17 presents a scenario which depicts a pilot obtaining NOTAMs from an FSS specialist in a preflight briefing. The pilot is planning an international flight.

TABLE 2-1. NOTAM SYSTEM OPERATIONAL REQUIREMENTS CORRELATION

NASSRS PARAGRAPH		POSITION / PARAGRAPH	PREFLIGHT BRIEFING SPECIALIST		INFLIGHT BRIEFING SPECIALIST			NOTAM SPECIALIST			BROADCAST SPECIALIST	
			2.3.1.a	2.3.1.b	2.3.2.a	2.3.2.b	2.3.2.c	2.3.3.a	2.3.3.b	2.3.3.c	2.3.3.a	2.3.3.b
3.1.2	Aeronautical info requirements		-	-	-	-	-	-	-	-	-	-
3.1.2.A	Acquiring and maintaining							X				
3.1.2.A.1	Acquire for entire NAS area							X				
3.1.2.A.1.a	NAS changes						X	X				
A.2	Accept from any source						X	X				
A.3	Available with 1 minute											
A.4	Remove within 1 hour											
B.	Continuous availability to spec		X		X						X	
C.	Continuously availability to users			X		X						X
D.	Tailored retrieval of information		X		X				X		X	
E.	Voice/data communications		-	-	-	-	-	-	-	-	-	-
E.1	User access			X		X				X		
E.2	Autoanswer capabilities											
F.	Service in peak demand		-	-	-	-	-	-	-	-	-	-
F.1	Specialist request		X		X							
F.2	User request											

TABLE 2-1. NOTAM SYSTEM OPERATIONAL REQUIREMENTS CORRELATION (Continued)

NASSRS PARAGRAPH		POSITION	ACF CONTROLLER		TM COORDINATOR	ATCT CONTROLLER			TM SPECIALIST	
		PARAGRAPH	2.3.5.a	2.3.5.b	2.3.6.a	2.3.7.a	2.3.7.b	2.3.7.c	2.3.8.a	2.3.8.b
3.1.2	Aeronautical info requirements		-	-	-	-	-	-	-	-
3.1.2.A	Acquiring and maintaining		X		X	X			X	
3.1.2.A.1	Acquire for entire NAS area		X		X	X			X	
3.1.2.A.1.a	NAS changes		X		X	X			X	
A.2	Accept from any source		X		X	X			X	
A.3	Available with 1 minute									
A.4	Remove within 1 hour									
B.	Continuous availability to spec			X				X		X
C.	Continuously availability to users			X			X	X		X
D.	Tailored retrieval of information			X		X		X	X	
E.	Voice/data communications		-	-	-	-	-	-	-	-
E.1	User access			X				X		
E.2	Autoanswer capabilities									
F.	Service in peak demand		-	-	-	-	-	-	-	-
F.1	Specialist request			X						
F.2	User request									

TABLE 2-1. NOTAM SYSTEM OPERATIONAL REQUIREMENTS CORRELATION (Continued)

NASSRS PARAGRAPH		POSITION / PARAGRAPH	CARF SPECIALIST 2.3.9.a	CARF SPECIALIST 2.3.9.b	AWP SPECIALIST 2.3.10.a	NFDC SPECIALIST 2.3.11.a	NFDC SPECIALIST 2.3.11.b	NFDC SPECIALIST 2.3.11.c	NFDC SPECIALIST 2.3.11.d	MILITARY NOTAM SPECIALIST 2.3.12.a	MILITARY NOTAM SPECIALIST 2.3.12.b	NAWPF DATA SPECIALIST 2.3.13.a	NAWPF DATA SPECIALIST 2.3.13.b
3.1.2	Aeronautical info requirements		-	-	-	-	-	-	-	-	-	-	-
3.1.2.A	Acquiring and maintaining		X				X	X	X				
3.1.2.A.1	Acquire for entire NAS area		X				X					X	
3.1.2.A.1.a	NAS changes		X				X					X	
A.2	Accept from any source		X				X			X			
A.3	Available with 1 minute												
A.4	Remove within 1 hour												
B.	Continuous availability to spec			X								X	
C.	Continuously availability to users			X									
D.	Tailored retrieval of information				X		X	X	X				X
E.	Voice/data communications											-	-
E.1	User access											X	
E.2	Autoanswer capabilities												
F.	Service in peak demand		-	-	-	-	-	-	-	-	-	-	-
F.1	Specialist request											X	
F.2	User request												

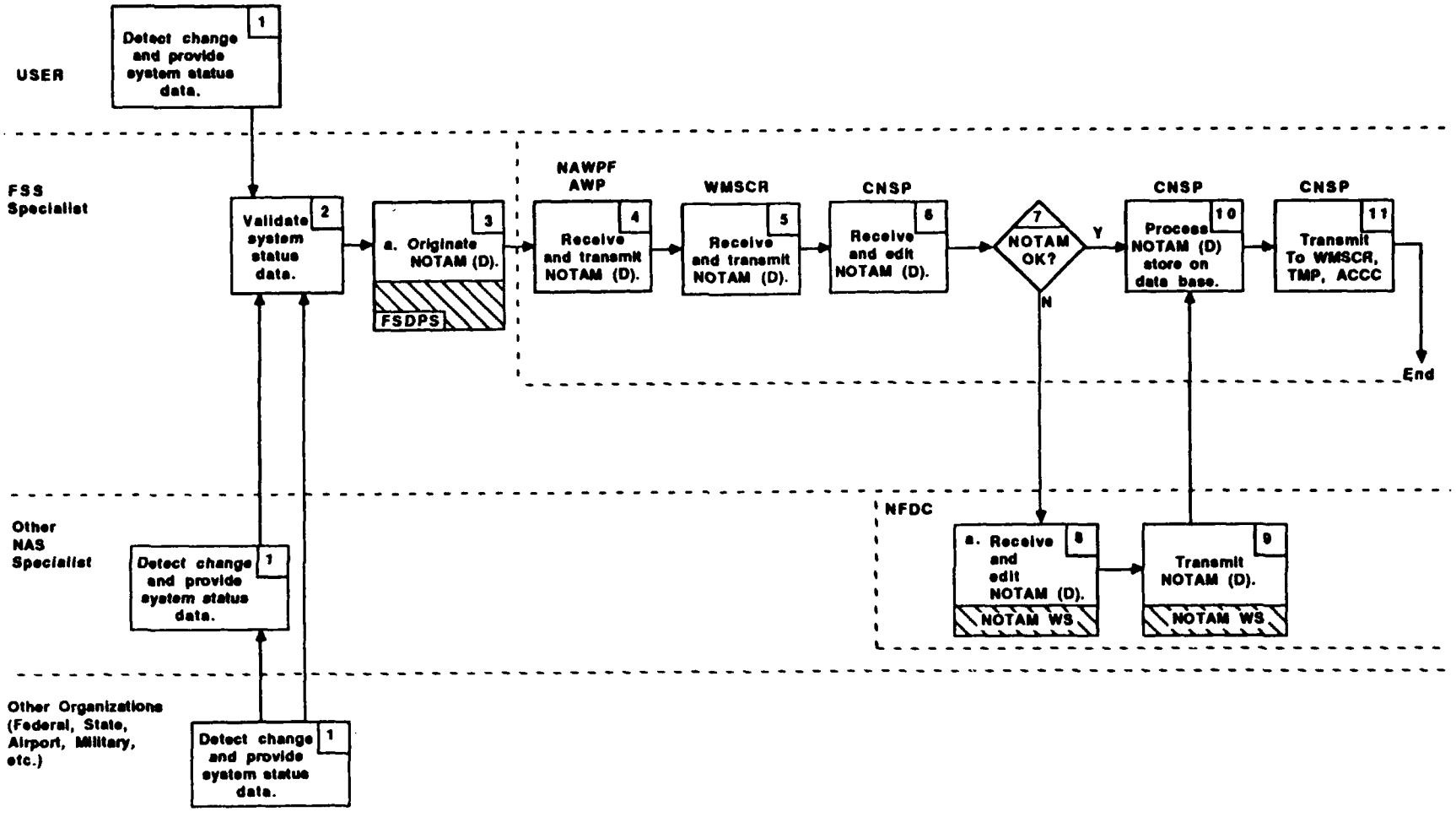

FIGURE 2-16
OPERATIONAL SEQUENCE DIAGRAM
NOTAM ORIGINATION BY FSS SPECIALISTS

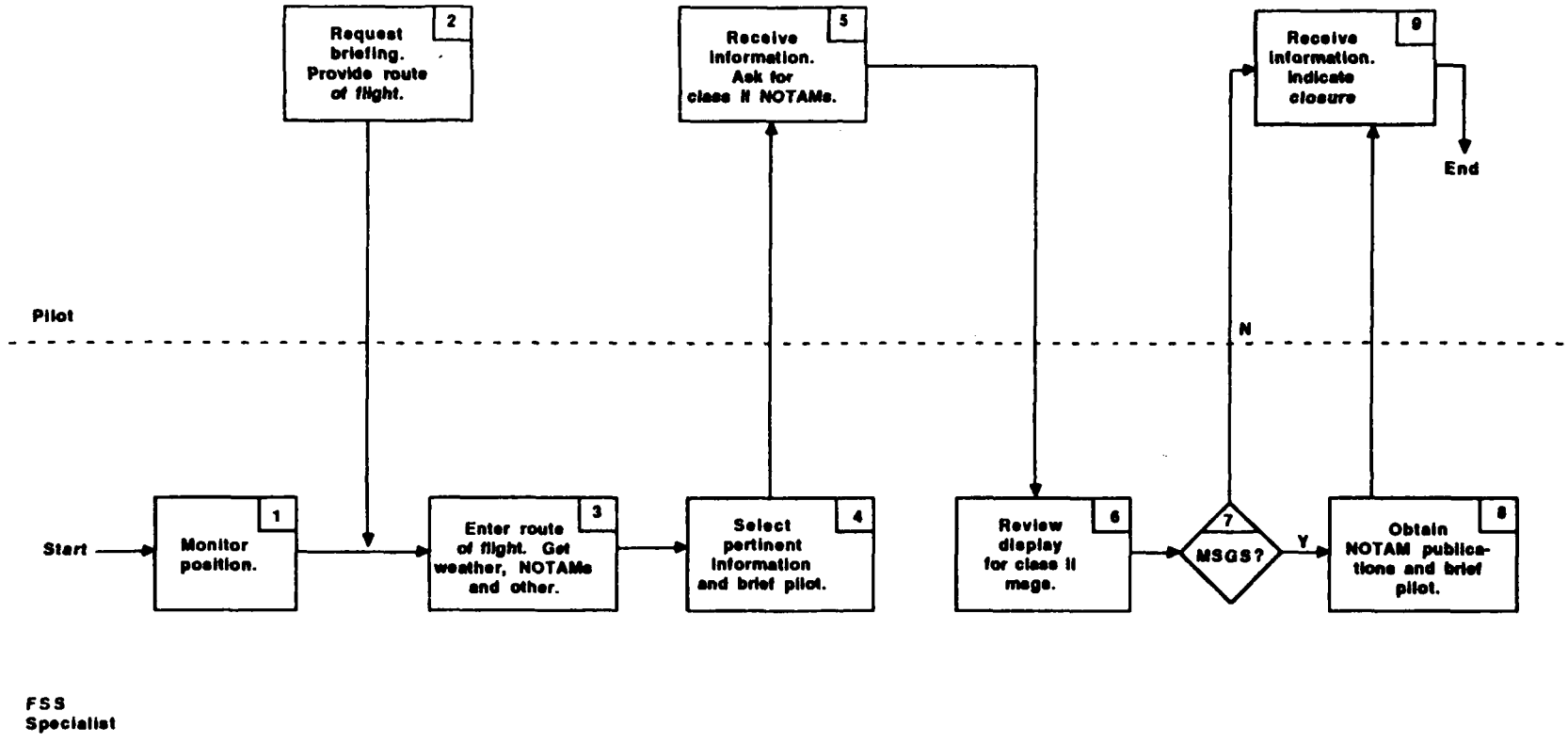

FIGURE 2-17
OBTAIN NOTAMS IN PREFLIGHT BRIEFING VIA TELEPHONE

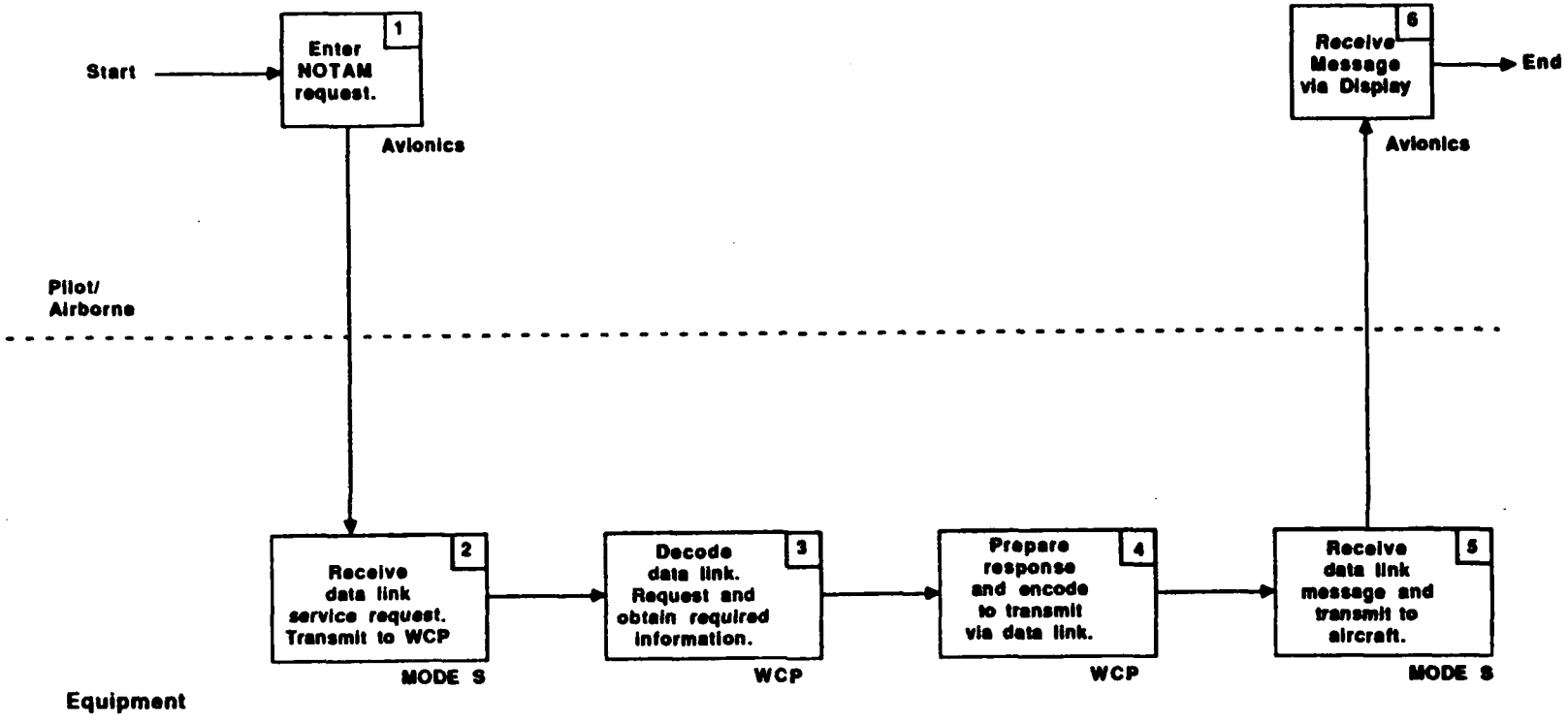

FIGURE 2-18
OBTAIN NOTAMS VIA DATA LINK

The FSS specialist monitors his position (1) and when a pilot requests a standard briefing provides a proposed route of flight (2): The FSS specialist enters the route of flight via the AFSS Work Station and receives a display containing weather, NOTAMs, and other information pertinent to the route of flight (3): The FSS specialist reviews the information for the proposed flight and briefs the pilot (4): After receiving the information, the pilot asks if there are any pertinent published NOTAMs (5): The FSS specialist reviews his display (6) for published abbreviated NOTAM messages: If there are domestic, military, or international published NOTAMs pertinent to the proposed flight (7), the FSS specialist obtains the appropriate NOTAM publications and provides the information to the pilot (8): After receiving the information, the pilot indicates closure if no more information is required (9): If there are no pertinent published NOTAMs (7), the FSS specialist informs the pilot (8), and the pilot indicates closure if no more information is required (9).

2.6.2 Obtain NOTAMs via data link

Figure 2-18 presents a scenario which depicts an airborne pilot obtaining NOTAMs via the MSDL. The pilot, using special equipment, enters a request for NOTAMs for a specific location (1): The Mode S receives the request and sends it to the WCP (2): The WCP decodes the request and obtains the required information from its data base or elsewhere (3): The WCP then prepares the response and encodes the message for transmission via data link (4): After receiving the message from the WCP, the Mode S sends the information to the aircraft (5) for display to the pilot (6).

REFERENCES

Advanced Automation System, System Level Specification, (FAA-ER-130-005H-AP), 28 August 1987, (through SCN 14).

Aeronautical Information Services, (with supplements), ICAO Annex 15, sixth edition, Montreal, July 1973.

Aeronautical Information Services Manual, (with supplements), ICAO document 8126-AN/872/2, third edition, Montreal, 1981.

Air Traffic Control, FAA Order 7110.65E, Washington, DC, April 9, 1987.

Data Communications, FAA Order 7110.80D, Washington, DC, 8 May 1986.

Facility Operation and Administration, FAA Order 7210.3H, Washington, DC, 28 August 1986.

Flight Services Handbook, FAA Order 7110.10H, Washington, DC, 8 May 1986.

International Notices to Airmen, published bi-weekly by the GPO, Washington, DC, current edition.

National Airspace System Level I Design Document, NAS-DD-1000B, FAA Washington, DC, May 1986, (includes SCN 1 through SCN 13).

National Airspace System Plan: Facilities, Equipment, Associated Development and Other Capital Needs, Government Printing Office (GPO) Publication 179-550, Washington, DC, April 1987.

National Airspace System: System Requirements Specification, NAS-SR-1000, FAA Washington, DC, March 1985, (includes SCN 1 through SCN 6).

Notices to Airmen, published bi-weekly by the GPO as GPO Publication 493-729, Washington, DC, current edition.

Notices to Airmen (NOTAMs), FAA Order 7930.2B, Washington, DC, August 28, 1986, (includes change 1).

Operations Concept for TCCC Man-Machine Interface, (DOT/FAA/AP-86/02), 28 March 1986.

Operations Concept for the Advanced Automation System Man-Machine Interface, (DOT/FAA/AP-84/16), 10 August 1984.

Plan for Integrating the DOD NOTAM Requirements into the Federal Aviation Administration's United States NOTAM System, 26 September 1985.

Special Military Operations, FAA Order 7610.4G, Washington, DC, 1 July 1986.

Specification for the Flight Service Automation System, Volumes I and III, (FAA-E-2685C), 4 March 1988.

The U.S. Military Notice to Airmen (NOTAM System, AFR55-16(C1)/AR95-10(C1)/ OPNAVINST 3721.20 (CH-1), Departments of the Air Force, the Army, and the Navy, Washington, DC, October 9, 1986.

Traffic Management System, FAA Order 7210.47, Washington, DC, 22 April 1985.

United States NOTAM System, System Design, (Integrating the FAA and DOD NOTAM Requirements), (DFTA01-81-3017), FAA/SAA, Washington, DC.

United States NOTAM System, Users Manual, (DFTA01-81-3017), FAA/SSA.

Weather Message Switching System Replacement System Specification, FAA-E-2764b, Washington, DC, 21 April 1987.

ACRONYMS

AAS	advanced automation system
ACCC	Area Control Computer Complex
ACF	area control facility
ADO	Airport District Office
ADS	automatic dependent surveillance
AFSS	Automated Flight Service Station
AFTN	Aeronautical Fixed Telecommunications Network
AIS	Aeronautical Information System
ARINC	Aeronautical Radio, Incorporated
ATCCC	Air Traffic Control Command Center
ATCT	Airport Traffic Control Tower
ATIS	Automatic Terminal Information Service
AWN	Automated Weather Network
AWP	aviation weather processor
CARF	Central Altitude Reservation Function
CNS	consolidated NOTAM system
CNSP	consolidated NOTAM system processor
DF	direction finder
DOD	Department of Defense
DUAT	Direct User Access Terminal
EFAS	en route flight advisory specialist
FAA	Federal Aviation Administration
FBO	fixed base operator
FDC	*Flight Data Center*
FIFO	Flight Inspection Field Office
FSAS	Flight Service Automation System
FSDPS	flight service data processing system
FSS	Flight Service Station
HF	high frequency
ICAO	International Civil Aviation Organization
ICSS	Interface Communications Switching System
IFR	instrument flight rules
INOF	International NOTAM Office
LIDD	Level I Design Document
MBO	military base operator
MSDL	Mode S Data Link
NADIN	National Airspace Data Interchange Network
NAS	National Airspace System
NASSRS	NAS Systems Requirements Specification
Navaid	navigational aid
NAWPF	National Aviation Weather Processing Facility
NFDC	National Flight Data Center
NOTAM	Notice to Airmen
RCF	radio communications facility
SAT	system acceptance test
TCCC	tower control computer complex
TCS	tower communications system
TM	traffic management
TMC	traffic management coordinator
TMF	Traffic Management Facility

TMP	traffic management processor
TMS	traffic management system
TMVS	traffic management voice switch
TPC	tower position console
UHF	ultra high frequency
USNS	United States NOTAM System
VHF	very high frequency
VOR	very high frequency omnidirectional range
VRS	Voice Response System
VSCS	voice switching and control system (for ACF)
WCP	Weather Communications Processor
WMSCR	Weather Message Switching Center Replacement
WS	Work Station

GLOSSARY

The following terms are used within this document in the sense in which they are defined here.

Air Navigation Facility (Navaid). Any facility used in, available for use in, or designated for use in aid of air navigation. Included are landing areas, lights, any apparatus or equipment for disseminating weather information, for signaling, for radio direction-finding, or for radio or other electronic communications, and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing or takeoff of aircraft.

Airport Traffic Control Tower (ATCT). A facility providing airport traffic control service to aircraft operating in the vicinity of an airport or on the movement area.

Area Control Facility (ACF). The planned 23 facilities that will result from consolidation of existing ARTCC and TRACON/TRACAB facilities.

Automated Flight Service Station (AFSS). An Air Traffic facility which provides such services as pilot briefings, receiving and processing of IFR flight plans, relaying of ATC clearances, broadcasts of aviation and NAS weather information, origination of Notices to Airmen, and provides VFR search and rescue services.

Automatic Terminal Information Service (ATIS). Message consisting of recorded noncontrol information in selected terminal areas. A continuous broadcast of ATIS messages is transmitted by radio. Its purpose is to improve controller effectiveness and to relieve frequency congestion by automating the repetitive message broadcasts.

CARF NOTAM. A NOTAM concerning a CARF or ACF altitude reservation (ALTRV), orginated by the CARF.

Class II NOTAM System. The system that is used to process Published NOTAMs.

Consolidated NOTAM System (CNS). The combination of the CNSP and NOTAM work station.

Consolidated NOTAM System Processor (CNSP). The processing system that consolidates and integrates domestic, international, and military NOTAM processing into a single automated system.

Domestic NOTAM. A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure) of, or hazard in, the National Airspace System, the timely knowledge of which is essential to personnel concerned with flight operations.

Domestic NOTAM System. See NOTAM System.

FAA NOTAM System. See NOTAM System.

Instrument Flight Rules (IFR). Federal Aviation Regulations (FAR) that govern the procedures for conducting instrument flight (FAR Part 91).

International NOTAM. A NOTAM that is distributed internationally.

International NOTAM Summary. A listing of the numbers identifying all international NOTAMs for a specific country which are in effect at the time of the summary.

Military NOTAM. A NOTAM regarding military facilities, services, activities, procedures or hazards generated by military offices.

National Airspace System (NAS). The common network of U.S. airspace; air navigation facilities, equipment, and services; airports or landing areas; aeronautical charts, information, and services; rules, regulations, and procedures; technical information, manpower, and material. Included are system components shared jointly with the military.

NOTAM. A notice, containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

NOTAM Origination. The process of obtaining and validating system conditions (i.e., system status information) and of formulating and distributing the corresponding NOTAM.

NOTAM Publication. The document that contains a listing of all the domestic Published NOTAMs.

NOTAM System. The system operated by the FAA, which collects and disseminates information on unanticipated or temporary changes to components of or hazards in the NAS until the associated charts and related publications have been amended or the condition no longer exists. The system also distributes NOTAMs received from the United States military NOTAM system and from selected foreign countries.

NOTAM Work Station. Data entry and display, processing, and storage equipment used by NFDC specialists in performing their duties.

Processed NOTAM. A NOTAM that has been processed by the consolidated NOTAM system, i.e., editied, annotated, etc.

Published NOTAM. A NOTAM which has been published for distribution by mail.

TM NOTAM. A NOTAM pertaining to traffic management restrictions originated by the traffic management specialists in the ATCCC.

System Status Data. Data regarding planned or unplanned changes in the condition of any component or hazard in the NAS. Conditions requiring the generation and distribution of a NOTAM are outlined in FAA Order 7930.2B.